

Building Chatbot using Google DialogFlow

Topic Name : DATA SCIENCE

Sub-topic Name : CHATBOT

Course link : <https://ineuron.ai/course/Building-Chatbot-using-Google-DialogFlow>

Course Description :-

This course will help students gain knowledge of building Chatbot using Google DialogFlow. In this course you will learn how to create various projects on chatbots. Upon successful completion of the course students will be able to create chatbots on their own using Google DialogFlow.

Course Features :-

- => Online Instructor-led learning
- => Practical Implementation
- => Integrate academic knowledge with the tech
- => Real-time Project
- => Live Class Recording
- => Doubt Clearing
- => Assignment in all the Module
- => Quiz in every Module
- => Career Counselling
- => Completion Certificate

What you will learn :-

- => Chatbot Introduction
- => Basics of Dialogflow
- => Applications using GCP Dialogflow with UI
- => Integration
- => Projects

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Shivan Kumar :

~ Associate Data Scientist, Mentor, and Kaggle Master with 2 Years of Experience. Experience in building models that translate data points into business insights. Highly accurate at collecting, analyzing, and interpreting large datasets, developing machine learning, deep learning, Chatbots models, and deploying the solutions on the cloud. I also love to participate in Hackathons. In my free time, I like to mentor students to learn Data Science and achieve their goals.

Curriculum details :-

=> Chatbot Introduction :

- ~ What is a Chatbot?
- ~ How does Chatbot work?
- ~ Types of Chatbot
- ~ Applications of Chatbot
- ~ Architecture of Chatbot
- ~ Comparison of different Chatbot Platforms
- ~ Different types of Chatbot

=> Basics of Dialogflow :

- ~ Introduction to Google Dialogflow
- ~ How does Dialogflow Work?
- ~ Features of Dialogflow
- ~ Use cases of Dialogflow
- ~ Advantages of Dialogflow
- ~ Why should we choose Dialogflow
- ~ Components of the Dialogflow

=> Applications using GCP Dialogflow with UI :

- ~ How to create your first Dialogflow Agent
- ~ How to create new Intents
- ~ How to create Parameters in Dialogflow
- ~ How to create your own Entities
- ~ How to use your new Entities

- ~ Contexts in Dialogflow
- ~ How to customize the Default Welcome Intent
- ~ How to create a Custom Intent
- ~ How to customize the Fallback Intent
- ~ Create an intent with Parameters
- ~ Knowledge base in Dialogflow
- ~ Training in Dialogflow
- ~ Intent matching with Follow-up Intent
- ~ Webhooks
- ~ Testing
- ~ Integration
- ~ Training and Fallbacks

=> Projects :

- ~ History based Chatbot (No need to remember anything, you can ask directly to your chatbot)
- ~ General knowledge based Chatbot
- ~ Bio Chatbot
- ~ Syllabus bot (This type of chatbot can be used in school, colleges or educational institute to provide their syllabus)

Solidity Live Class

Topic Name : BLOCKCHAIN

Sub-topic Name : SOLIDITY

Course link : <https://ineuron.ai/course/Solidity-Live-Class>

Course Description :-

Solidity & Solana Blockchain course is designed to provide an in depth knowledge on various aspects & concepts of blockchain & Solidity. A step by step learning will be help to focus on each & every parameter of Blockchain. This course will take you into a deep dive into the state of the art blockchain technology and how to go about writing smart contracts in the ethereal platform. Moreover, this is a project-ready course which will help you take whatever you learn and apply it into a real-world portfolio-ready app, which you can showcase to the world.

Course Features :-

- => Onine Live Classes
- => Doubt Clearing
- => Live-Class Recording
- => Real-time Project
- => Assignment in all modules
- => Quiz in every module
- => Career Counselling
- => Completion Certificate

What you will learn :-

- => Solidity Fundamentals
- => Smart Contracts in Solidity
- => Smart Contract Best Practices
- => What are ICO and what are tokens
- => Understanding about ERC-20
- => Solana Blockchain
- => Web 3.0
- => Intro to IPFS
- => Oracles
- => DeFi
- => NFTs

Requirements :-

- => Knowledge of Web Designing will be Advantageous.

Instructors :-

=> Sanjeevan Thorat :

~ Data Scientist and Blockchain developer, with experience in developing and managing end to end solutions. I have hands-on experience in Python Programming Language, Machine Learning Deep Learning and Natural language processing. Blockchain development experience in smart contracts, Decentralised Finance applications, DAOs, NFTs and Oracles running on Ethereum and Polygon blockchains. I have worked with various clients for different industry projects in the blockchain space. I specialize in building smart contracts on the Ethereum blockchain along with JavaScript integration for enhancing user experience to generate maximum returns on investment.

Curriculum details :-

- => Introduction :
 - ~ Introduction to course
- => Solidity Fundamentals :
 - ~ Smart Contracts in Solidity
 - ~ Basic-Smart-Contract-Part1
 - ~ Basic Smart Contract Part 2
 - ~ Data types and Variables - part 1
 - ~ Data types and Variables - part 2
 - ~ Functions
 - ~ Storage vs Memory
 - ~ Events and logs
 - ~ Factory contract
 - ~ Security Of Smart Contracts
 - ~ Inheritance
 - ~ Inline Assembly

~ *Application Binary Interface*

=> Smart Contracts Pitfalls, Testing and Debugging :

~ *Unit tests*

~ *Integration Tests*

~ *Javascript tests*

~ *Smart Contract Best Practices*

=> Creating our own cryptocurrency on Ethereum Network :

~ *What are ICO and what are tokens*

~ *Understanding about ERC-20*

~ *Writing code for our cryptocurrency*

~ *Safe Math*

~ *Creating the cryptocurrency*

~ *Deploying it to the network*

=> Solana Blockchain :

~ *Introduction to solana Blockchain*

~ *Creating our own cryptocurrency on the Solana Network using CLI - part 1*

~ *Creating our own cryptocurrency on the Solana Network using CLI - part 2*

~ *Creating our own cryptocurrency on the Solana Network using CLI - part 3*

~ *Creating our own cryptocurrency on the Solana Network using Javascript - part 1*

~ *Creating our own cryptocurrency on the Solana Network using Javascript - part 2*

~ *Creating our own cryptocurrency on the Solana Network using Javascript - part 3*

~ *Creating our own cryptocurrency on the Solana Network using Javascript - part 4*

=> Web 3.0 & Connecting everything into a project :

~ *What is Web 3.0 ?*

~ *iNeuron Marketplace - part1*

~ *iNeuron Marketplace - part2*

~ *iNeuron Marketplace - part3*

~ *iNeuron Marketplace - part4*

~ *iNeuron Marketplace - part5*

~ *iNeuron Marketplace - part6*

~ *iNeuron Marketplace - part7*

~ *iNeuron Marketplace - part8*

=> A little more about ethereum :

~ *Ethereum naming service*

~ *Intro to IPFS*

~ *Oracles*

~ *DeFi*

=> NFTs :

~ *What are NFTs and ERC721*

~ *Create Your own NFT part 1*

~ *Create Your own NFT part 2*

~ *Create Your own NFT part 3*

~ *Create Your own NFT part 4*

Google Dialogflow

Topic Name : DATA SCIENCE

Sub-topic Name : CHATBOT

Course link : <https://ineuron.ai/course/Google-Dialogflow>

Course Description :-

Wants to become an expert in Dialogflow? You've come to the right spot. This course is specially designed for developing learning and comprehending Dialogflow from the ground up. This course doesn't require any prior knowledge of Chatbot. It will give you a complete knowledge on Dialogflow in-depth.

Course Features :-

- => Completion Certificate
- => Source code
- => Challenges
- => Assignments
- => Quizzes
- => Downloadable Resources

What you will learn :-

- => Create and deploy a conversational chatbot from scratch
- => Deploy Chatbot to cloud platforms
- => Integrate with third-party apps like Facebook, Slack, Skype, Whatsapp

Requirements :-

- => No Prior experience of any Chatbot is required.
- => Slack, Facebook, Telegram & more Accounts
- => A system with internet connection
- => Your Dedication

Instructors :-

=> Khushali Shah :

~ A data scientist having rich experience working with MNCs and start-ups in the field of data science and machine learning. She has expertise in Chatbot development for various domains & been developing professionally for 6+ years with diverse job history. She also had positions in software module development, web app development, functional designs, requirement gathering, client interaction, and server setup/admin & can help everywhere in the stack; she loves wearing multiple hats to an extent. She also believes in enhancing her skills by training and learning new things day by day.

Curriculum details :-

=> Introduction :

- ~ What is Chatbot? Preview
- ~ Why Chatbot?
- ~ Types of Chatbot
- ~ Use of Chatbot
- ~ Examples of Chatbot
- ~ Chatbot Architecture
- ~ What is Google Dialogflow?

=> Create Account :

- ~ Google Account Preview
- ~ Dialogue Console quick review

=> Dialogflow Concepts :

- ~ Dialogflow - Agents
- ~ Dialogflow - Create and manage agents
- ~ Dialogflow - Prebuilt Agents
- ~ Dialogflow - Multilingual agents
- ~ Dialogflow - Mega agents
- ~ Dialogflow - Intents
- ~ Dialogflow - Create and manage intents
- ~ Dialogflow - Training Phrases
- ~ Dialogflow - Actions and parameters
- ~ Dialogflow - Responses
- ~ Dialogflow - Rich response messages
- ~ Dialogflow - Default intents
- ~ Dialogflow - Entities
- ~ Dialogflow - Entity options
- ~ Dialogflow - System entities
- ~ Dialogflow - Custom entities
- ~ Dialogflow - Contexts
- ~ Dialogflow - Input and Output contexts
- ~ Dialogflow - Follow-up intents

- ~ *Dialogflow - Follow-up intents creation*
- ~ *Dialogflow - Events*
- ~ *Dialogflow - Fulfillment*
- ~ *Dialogflow - Inline editor*
- ~ *Dialogflow - Webhook service*

=> Building Chatbot :

- ~ *Overview*
- ~ *Create Agent in Dialogflow*
- ~ *Create Intent and Entities*
- ~ *Food Order Intent*
- ~ *Why is integration required?*
- ~ *Telegram Integration*
- ~ *Facebook Integration*
- ~ *Facebook Integration Test*
- ~ *Slack Integration*

=> COVID19 Chatbot :

- ~ *Overview*
- ~ *Agent & Intent Creation*
- ~ *World Stats Info Intent*
- ~ *Webhook Code for Welcome Intent*
- ~ *Get Stats Covid Code*
- ~ *World Covid Code*
- ~ *Deployment*
- ~ *Enable Webhook*

=> Course Summary :

- ~ *Summary*

Machine Learning Masters

Topic Name : DATA SCIENCE

Sub-topic Name : MACHINE LEARNING

Course link : <https://ineuron.ai/course/Machine-Learning-Masters>

Course Description :-

Machine Learning Masters

Course Features :-

- => Machine Learning in depth from beginning to advance discussion and implementation with Deployment.
- => Deep learning in-depth topic wise discussion and implementation with the project.
- => Docker and Kubernetes end to end with CI/CD pipeline for machine learning.
- => End to End Model Deployment in Azure, GCP, AWS, and Pivotal Cloud.
- => Python spark implementation with the project.
- => Time Series end to end implementation in machine learning and deep learning.
- => 26 + hands-on industry real-time projects.
- => Power BI and Tableau self-placed course.
- => Machine Learning Deep Learning Masters Certificate
- => 200 hours live interactive classes.
- => Every week doubt clearing session after the live classes.
- => Lifetime Dashboard access.
- => Doubt clearing one to one
- => Doubt clearing through mail and support team
- => Assignment in all the module
- => 20+ use case of Machine learning
- => A live project with real-time implementation
- => Resume building
- => career guidance
- => interview Preparation
- => Regular assessment
- => Job alerts
- => Online Instructor-led learning: Live teaching by instructors
- => Product Demo

What you will learn :-

- => Python
- => Stats
- => Machine learning
- => Deep learning
- => Data analytics
- => Mock interview
- => Interview preparation
- => Resume building

Requirements :-

- => Dedication
- => Laptop with internet connectivity

Instructors :-

=> Sunny Bhavleen Chandra :

~ Sr. Data Scientist and lecturer at iNeuron.ai with working experience in computer vision, natural language processing and embedded systems. Hands-on experience leveraging machine learning, deep learning, transfer learning models to solve challenging business problems. Also, he has a vast interest in Robotics.

=> Sourangshu Pal :

~ Visual Computing Engineer and instructor at iNeuron.ai having 3 years of diverse experience in the discipline of visual computing with specialization in Deep Learning and Computer Graphics. Loves to analyze, process, and model visual data then interpret the insights to create actionable plans for solving

challenging business problems.

=> krish naik :

~ Having 10+ years of experience in Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

=> Sudhanshu Kumar :

~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

=> Course Introduction :

- ~ Introduction of Data science and its application in Day to Day life Preview
- ~ Course overview and Dashboard description Preview

=> Python Core :

- ~ Introduction of python and comparison with other
- ~ Programming language
- ~ Installation of Anaconda Distribution and other python
- ~ IDE Python Objects, Number & Booleans, Strings
- ~ Container objects, Mutability of objects
- ~ Operators Arithmetic, Bitwise, Comparison and Assignment operators, Operators Precedence and associativity
- ~ Conditions(If else, if elif else) Loops(While ,for)
- ~ Break and Continue statement and Range Function.

=> String Objects and collections :

- ~ String object basics
- ~ String methods
- ~ Splitting and Joining Strings
- ~ String format functions
- ~ List object basics
- ~ List as stack and Queues
- ~ List comprehensions

=> Tuples,Set ,Dictionaries Functions :

- ~ Tuples,Sets Dictionary Object basics, Dictionary Object methods, Dictionary View Objects.
- ~ Functions basics, Parameter passing, Iterators Generator functions
- ~ Lambda functions
- ~ Map , Reduce, Filter functions

=> OOPS concepts Working with Files :

- ~ OOPS basic concepts
- ~ Creating classes and Objects Inheritance
- ~ Multiple Inheritance
- ~ Working with files
- ~ Reading and writing files
- ~ Buffered read and write
- ~ Other File methods

=> Exception Handling :

- ~ Exceptions Handling with Try except

=> Api :

- ~ Flask introduction
- ~ Flask Application
- ~ Open linkFlask
- ~ App RoutingFlask
- ~ URL BuildingFlask
- ~ HTTP MethodsFlask

=> Database :

- ~ Mongo DB SQL
- ~ Lite python SQL

=> Python pandas Modules :

- ~ Python Pandas Series
- ~ Python Pandas DataFrame
- ~ Python Pandas Panel
- ~ Python Pandas Basic functionality

=> Python Numpy :

- ~ NumPy Narray Object
- ~ NumPy Data Types
- ~ NumPy Array Attributes
- ~ NumPy Array Creation Routines
- ~ NumPy Array from Existing
- ~ Data Array From Numerical Ranges
- ~ NumPy Indexing & Slicing
- ~ NumPy Advanced Indexing
- ~ NumPy Broadcasting
- ~ NumPy Iterating Over Array
- ~ NumPy Array Manipulation
- ~ NumPy Binary Operators
- ~ NumPy String Functions
- ~ NumPy Mathematical Functions
- ~ NumPy Arithmetic Operations
- ~ NumPy Statistical Functions
- ~ Sort , Search & Counting Functions
- ~ NumPy Byte Swapping
- ~ NumPy Copies Views
- ~ NumPy Matrix Library

~ NumPy Linear Algebra

=> Exploratory Data Analysis :

- ~ Feature Engineering and Selection
- ~ Building Tuning and Deploying Models
- ~ Analyzing Bike Sharing Trends
- ~ Analyzing Movie Reviews Sentiment
- ~ Customer Segmentation and Effective Cross Selling
- ~ Analyzing Wine Types and Quality
- ~ Analyzing Music Trends and Recommendations
- ~ Forecasting Stock and Commodity Prices

=> Statistics :

- ~ Descriptive Statistics
- ~ Sample vs Population statistics Random Variables
- ~ Probability distribution function Expected value
- ~ Binomial Distribution
- ~ Normal Distribution z score
- ~ Central limit Theorem
- ~ Hypothesis testing Z Stats vs T stats
- ~ Type 1 type 2 error
- ~ Confidence interval
- ~ Chi Square test
- ~ ANOVA test
- ~ F stats

=> Machine Learning 1 :

- ~ Introduction
- ~ Supervised , Unsupervised, Semi supervised, Reinforcement Train , Test, Validation Split
- ~ Performance Overfitting , underfitting OLS.
- ~ Linear Regression assumption.
- ~ R square adjusted
- ~ R square Intro to Scikit learn
- ~ Training methodology
- ~ Hands on linear regression
- ~ Ridge Regression
- ~ Logistics regression
- ~ Precision Recall ROC curve
- ~ F Score

=> Machine Learning 2 :

- ~ Decision Tree Cross
- ~ Validation Bias vs Variance
- ~ Ensemble approach Bagging
- ~ Boosting Random
- ~ Forest Variable Importance

=> Machine Learning 3 :

- ~ XGBoost
- ~ Hands on XgBoost
- ~ K Nearest Neighbour
- ~ Lazy learners
- ~ Curse of Dimensionality
- ~ K NN Issues
- ~ Hierarchical clustering K Means
- ~ Performance measurement
- ~ Principal Component analysis
- ~ Dimensionality reduction
- ~ Factor Analysis

=> Machine Learning4 :

- ~ SVR
- ~ S V M
- ~ Polynomial Regression
- ~ Ada boost
- ~ Gradient boost
- ~ Gaussian mixture
- ~ Anomaly detection
- ~ Novelty detection algorithm Stacking
- ~ K NN regressor
- ~ Decision tree regressor DBSCAN

=> Natural Language Processing :

- ~ Text Analytics
- ~ Tokenizing , Chunking
- ~ Document term
- ~ Matrix TFIDF
- ~ Sentiment analysis hands on

=> Spark :

- ~ Spark overview.
- ~ Spark installation.
- ~ Spark RDD.
- ~ Spark dataframe .
- ~ Spark Architecture.
- ~ Spark ML lib.
- ~ Spark Nlp
- ~ Spark linear regression.
- ~ Spark logistic regression.
- ~ Spark Decision Tree.
- ~ Spark Naive Bayes

- ~ Spark xg boost
- ~ Spark time series.
- ~ Spark Deployment in local server
- ~ Spark job automation with scheduler.

=> Deep Learning :

- ~ Deep Learning Introduction.
- ~ Neural Network Architecture.
- ~ Loss Function.
- ~ Cost Function.
- ~ Optimizers.
- ~ CNN architecture.
- ~ Build First Classifier in CNN.
- ~ Deploy Classifier over cloud.
- ~ RNN overview.
- ~ GRU.
- ~ LSTM.
- ~ Time Series using RNN LSTM.
- ~ Customer Feedback analysis using RNN LSTM.

=> Time Series :

- ~ Arima
- ~ Sarima .
- ~ Auto Arima
- ~ Time series using RNN LSTM .
- ~ Prediction of NIFTY stock price.

=> Deployment :

- ~ Deployment of all the project In cloudfoundary , AWS AZURE and Google cloud platform
- ~ Expose api to web browser and mobile application retraining a pproach of Machine learning model
- ~ Devops infrastructure for machine learning model
- ~ Data base integration and scheduling of machine learning model and retraining c ustom machine learning training approach.
- ~ AUTO ML
- ~ Discussion on infra cost and data volume
- ~ P rediction based on streaming data

=> Extra session :

- ~ Discussion on project explanation in interview
- ~ Data scientist roles and responsibilities
- ~ Data scientist day to day work
- ~ Companies which hire a data scientist
- ~ Resume discussion with our team one to one

=> Tableau and power Bi self placed session :

- ~ Business Intelligence (BI) Concepts.
- ~ Microsoft Power BI (MSPBI) introduction.
- ~ Connecting Power BI with Different Data sources.
- ~ Power Query for Data Transformation.
- ~ Data Modelling in Power BI.
- ~ Reports in Power BI Reports and Visualisation types in Power BI.
- ~ Dashboards in Power BI.
- ~ Data Refresh in Power BI.
- ~ Traditional Visualisation(Excel) vs Tableau.
- ~ About Tableau.
- ~ Tableau vs Other BI Tool Pricing.

=> Tableau Interview Questions.

Project details :-

=> Python project :

- ~ Web crawlers for image data sentiment analysis and product review sentiment analysis
- ~ Integration with web portal
- ~ Integration with rest a A pi W eb portal and Mongo DB on Azure
- ~ Deployment on web portal on Azure
- ~ Text mining
- ~ Social media data churn

=> Chatbot Project :

- ~ Chatbot using Microsoft Luis
- ~ Chatbot using google Dialog flow
- ~ Chatbot using Amazon Lex
- ~ Chatbot using Rasa NLU
- ~ Deployemnt of chatbot with web , Telegram , Whatsapp , Skype

=> Machine learning project :

- ~ Healthcare analytics prediction of medicines based on FIT BITband
- ~ Revenue forecasting for startups
- ~ Prediction of order cancellation at the time of ordering inventories.
- ~ Anamoly detection in inventory packaged material.
- ~ Fault detection in wafferes based on sensordata
- ~ Demand forecasting for FMCG product.
- ~ Threat identification in security system.
- ~ Defect detection in vehicle engine.
- ~ Food price forecasting with Zomato dataset.
- ~ Fault detection in wafferes based on sensor data.
- ~ Cement_Strength _ reg.
- ~ Credit Card Fraud.
- ~ Forest_Cover_Classification .
- ~ Fraud Detection.
- ~ Income Prediction.

- ~ *Mushroom classifier., Phising Classifier , Thyroid_Detection .*
- ~ *Visibility climate.*

=> Deep Learning projects :

- ~ *Customer Feedback analysis using RNN LSTM.*
- ~ *Family member detection.*
- ~ *Industry financial growth prediction.*
- ~ *Speech recognition based attendance system.*
- ~ *Vehicle Number plate detection and recognition system.*

=> Tableau and power Bi Projects :

- ~ *Project 1. Project Sales.*
- ~ *Project 2. Financial Report.*
- ~ *Project 3. HealthCare.*
- ~ *Project 4. Procurement Spend Analysis.*
- ~ *Project 5. Human Resource Tableau*

Data Structure and Algorithm Foundation

Topic Name : DATA STRUCTURE

Sub-topic Name : DSA MASTERS

Course link : <https://ineuron.ai/course/Data-Structure-and-Algorithm-Foundation>

Course Description :-

A computer program is a collection of instructions to perform a specific task. For this, a computer program may need to store data, retrieve data, and perform computations on the data. A data structure is a named location that can be used to store and organize data and an algorithm is a collection of steps to solve a particular problem. Learning data structures and algorithms allow us to write efficient and optimized computer programs. Data Structure is a way of collecting and organizing data in such a way that we can perform operations on these data in an effective way.

Course Features :-

- => Lifetime Dashboard
- => Free Course
- => Certificate
- => Assignment
- => Quiz

What you will learn :-

- => Data structure and algorithm
- => Use of data structure
- => Practical implementation
- => Logical ability

Requirements :-

- => Computer with Internet Connectivity
- => Basic programming understanding

Instructors :-

=> Priya Bhatia :

~ Expertise in data structure competitive programming and solving an analytical problems and implementing data structure algorithm in multiple programming language. I have done my M.Tech in Artificial Intelligence at IIT Hyderabad and have an experience of implementation in multiple projects.

Curriculum details :-

- => Introduction about Data Structure and Algorithms (Hindi) :
 - ~ Introduction Preview
- => Analysis in Data Structure Algorithms (Hindi)
- => Introduction to DS Algo Analysis Part 2 (Hindi)
- => Asymptotic Notation : Discussion about theta Notation
- => Big O Notation in DS&Algo (Hindi)
- => Omega Notation in DS&ALGO (Hindi)
- => Recurrence Relation Solving : Master's Theorem
- => Recurrence Relation Solving-Substitution method
- => Recursive Tree Method DSA - (Hindi)
- => Introduction to Divide and Conquer DSA - (Hindi)
- => Binary Search Part 1 - Data Structure and Algorithm Hindi
- => Binary Search Part 2 Data Structure and Algorithm - Hindi)
- => Mergesort Part 1 - Data Structure and Algorithm | Hindi
- => Mergesort Part 2 Data Structure and Algorithm (Hindi)
- => Mergesort Part 3 Data Structure and Algorithm (Hindi)
- => Introduction to Quicksort Algorithm | Data Structure and Algorithm | Hindi
- => Implementation of QuickSort | Data Structure and Algorithm (Hindi)
- => Recurrence Relation of Quicksort Algorithm | Data Structure and Algorithm | Hindi
- => Problem1 based on Quicksort | Data Structure and Algorithm | Hindi
- => Problem2 based on Quicksort | Data Structure and Algorithm

=> Selection Procedure Algorithm

=> Recurrence Relation of selection procedure | Data Structure and Algorithm | Hindi

=> Finding of Maxima and Minima Using DAC | Data Structure and Algorithm | Hindi

Live Virtual Interview

Topic Name : DATA SCIENCE

Sub-topic Name : MACHINE LEARNING INTERVIEW

Course link : <https://ineuron.ai/course/Live-Virtual-Interview>

Course Description :-

Interview for Freshers, experienced, not ID domain candidate

Course Features :-

=> Lifetime Dashboard

=> Free Course

=> Interview Questions

What you will learn :-

=> How to prepare for Interview

Requirements :-

=> no prerequisite

Instructors :-

=> krish naik :

~ Having 10+ years of experience in Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

=> Sudhanshu Kumar :

~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

=> Live- Data Science Virtual Interview By Krish And Sudhanshu-Part 1 :

~ Virtual interview Preview

=> Live Virtual Interview For Data Science By Krish And Sudhanshu Part 2

=> Live Virtual Interview For Internship For College Student By Krish And Sudhanshu

=> Live Virtual Interview For Data Science By Krish And Sudhanshu

=> Live Transition Story Of Civil Engineer To Data Scientist With 2 Years Gap

=> Live Virtual Nervous Interview Of Mechanical Engineer For Data Science

=> Live Data Science Q&A With Krish And Sudhanshu- Give Away ML for Deployment+Internships For Women

=> Live Interview Of Lakshay For Data Science- Commerce And Statistics Background

=> Live Virtual Interview For Data Science From Teaching Assistant To Data Scientist

=> Live Virtual Interview For Data Science- Background Applied Geology From IIT Kharagpur

=> Live -Virtual Interview Of Fresher For Data Science - Session 6

Class 6th Biology

Topic Name : K12

Sub-topic Name : CLASS6

Course link : <https://ineuron.ai/course/Class-6th-Biology>

Course Description :-

The Science Syllabus is elegantly designed such that it introduces the basic concepts of Science and its importance in our daily life. It will make the foundation strong for the higher classes. The Biology section focuses on concepts like food, bodily movements, surroundings of living organisms, garbage, etc.

Course Features :-

=> Self Paced Videos

=> Completion Certificate

What you will learn :-

=> Food - Where does it come from?

=> Components of Food

=> Getting to know Plants

=> Body Movements

=> The living organisms and their surroundings

=> Water

Requirements :-

=> System with Internet Connection

=> Interest to learn

=> Dedication

Instructors :-

=> Dr Nishtha Jain :

~ I am a doctor by profession but a teacher by passion. I have been into the teaching profession for the last 3 years. I have been and am still a mentor for various courses which include technical as well as non-technical ones. These include MS-Excel, Tableau, Computer basics, Biology, English, etc. I love to learn, explore and share my knowledge to whatever extent possible. Being an ardent educator, I have always helped all my students and will continue to do the same.

Curriculum details :-

=> Food - Where does it come from? :

- ~ Lecture 1 : Introduction and food sources Preview
- ~ Lecture 2 : Major food components & Foods from Plants Preview
- ~ Lecture 3 : Animals' characteristics and their foods Preview
- ~ Lecture 1 - NCERT Solutions

=> Components of Food :

- ~ Lecture 1 : Introduction & Different tests
- ~ Lecture 2 : Role of various nutrients - Vitamins
- ~ Lecture 3 : Minerals, Roughage & Water
- ~ Lecture 4 : Balanced Diet & Deficiency Diseases
- ~ Lecture 1 - NCERT Solutions

=> Getting to know Plants :

- ~ Lecture 1 : Herbs, Shrubs, Trees, Creepers and Climbers
- ~ Lecture 2 : Parts of a plant - Stem
- ~ Lecture 3 : Parts of a plant - Leaf
- ~ Lecture 4 : Parts of a plant - Roots, Flowers & Pollination
- ~ Lecture 1 - NCERT Solutions
- ~ Lecture 2 - NCERT Solutions

=> Body Movements :

- ~ Lecture 1 : Human Body (Bones, Joints and Cartilage)
- ~ Lecture 2 : Types of Joints
- ~ Lecture 3 : - Xray, Skull, Shoulder bones, Ribs and Rib cage
- ~ Lecture 4 : - Bones of hands, Pelvic Bones, Muscles - 1
- ~ Lecture 5 : Bones of hands, Pelvic Bones, Muscles - 2
- ~ Lecture 6 : Gaits of Animals - Earthworm & Snail

- ~ *Lecture 7 : Gaits of Animals - Cockroaches & Birds*
- ~ *Lecture 8 : Gaits of Animals - Fish & Snakes*
- ~ *Lecture 1 - NCERT Solutions*

=> The living organisms and their surroundings :

- ~ *Lecture 1 : Introduction, Basic Characteristics*
- ~ *Lecture 2 : Types of habitats and adaptations*
- ~ *Lecture 3 : Terrestrial habitats*
- ~ *Lecture 4 : Aquatic habitats*
- ~ *Lecture 1 - NCERT Solutions*

=> Water :

- ~ *Lecture 1 : Introduction, Sources & Uses of Water*
- ~ *Lecture 2 : - Evaporation, Transpiration*
- ~ *Lecture 3 : - Water Cycle, Clouds, Rainfall*
- ~ *Lecture 4 : Groundwater, Water table*
- ~ *Lecture 5 : Floods, Droughts and their consequences*
- ~ *Lecture 6 : - Water shortage, Ways of conserving water and increasing its availability*
- ~ *Lecture 1 - NCERT Solutions*
- ~ *Lecture 2 - NCERT Solutions*

=> Garbage In, Garbage Out :

- ~ *Lecture 1 : Introduction*
- ~ *Lecture 2 : Biodegradable and Non-biodegradable wastes*
- ~ *Lecture 3 : Vermicomposting*
- ~ *Lecture 4 : Plastics, Paper recycling, minimise garbage & plastics*
- ~ *Lecture 1 - NCERT Solutions*
- ~ *Lecture 2 - NCERT Solutions*

Complete Bootstrap - 5 Projects

Topic Name : WEB DEVELOPEMENT

Sub-topic Name : BOOTSTRAP

Course link : <https://ineuron.ai/course/Complete-Bootstrap---5-Projects>

Course Description :-

This course will take you from having no prior knowledge of Bootstrap to mastering all of the utilities, components, widgets, and grids, as well as designing real-world themes and websites. This project-oriented course does not need prior knowledge of Bootstrap. Upon successful completion of this course, you will be able to build responsive and interactive websites and beautiful static pages using the bootstrap framework. So hurry up and enrol now to start a successful career as a front-end web developer.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Bootstrap Integration and typography
- => Buttons, breakpoints and utilities
- => Team pages
- => Navbars
- => Flexboxes
- => Forms
- => Modals
- => Custom cards

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

=> Getting started with bootstrap :

- ~ Introduction to Bootstrap4
- ~ Tools to be used in this course
- ~ File structure for learning
- ~ Emmet quick start part 1
- ~ Emmet quick start part 2

=> Bootstrap integration and typography :

- ~ Bootstrap integration
- ~ Bootstrap typography basics
- ~ Bootstrap typography for testimonials
- ~ Embed responsive YouTube videos

=> Video Landing Page :

- ~ Getting assets and preparing html
- ~ Beautiful landing page
- ~ Customized fonts

=> Buttons Breakpoints and utilities :

- ~ Get started with bootstrap buttons
- ~ Button size and backgrounds
- ~ Border utilities in Bootstrap
- ~ Grid system basics in Bootstrap

- ~ Mobile first concept of bootstrap
- ~ Breakpoints in grid

=> Project team-page :

- ~ Getting assets and basic setup of project
- ~ Logo and display utilities
- ~ Heading section
- ~ Team person one content
- ~ Custom styling for team section
- ~ Some fix and assignments

=> Navbar, flexbox, forms and modals :

- ~ Get started with navs
- ~ Flexbox utilities
- ~ Nav panels and assignment
- ~ Basics of navbars
- ~ Toggles and colors in navbars
- ~ Forms in bootstrap
- ~ input groups in Bootstrap
- ~ Modals in bootstrap

=> Project- App launch website :

- ~ Device mockups
- ~ Getting resources
- ~ Navbar part 1
- ~ center menu of navbar
- ~ Customized navbars
- ~ Login Modal
- ~ Feature section with custom font
- ~ Background svg image
- ~ Device mockups usage
- ~ Subscription form customization
- ~ App store icons
- ~ app store CSS
- ~ Building feature section
- ~ feature column section
- ~ Customized CSS for features
- ~ fixing bugs and gradients
- ~ Just fun - unplanned video

=> Project - Build 4 Custom Cards :

- ~ Introduction to cards
- ~ Introduction to cards part 2
- ~ Downloading project 4 files
- ~ preparing HTML for Card 1
- ~ Card 1 custom CSS part 1
- ~ Card 1 custom CSS part 2 and assignment
- ~ preparing HTML for Card 2
- ~ Card 2 custom CSS
- ~ preparing HTML for Card 3
- ~ Card 3 custom CSS part 1
- ~ Custom CSS for card 3 - part 2
- ~ Custom CSS for card 3 - part 3
- ~ preparing HTML for Card 4
- ~ Custom CSS for card 4

=> Bonus sign-up page :

- ~ Download project 5 files
- ~ Preparing our HTML
- ~ CSS for background image
- ~ Purple Styling of buttons
- ~ Adding colors to buttons
- ~ Fixing custom forms
- ~ Fixing errors and media queries

Pro Aptitude - Data Structures and Algorithms

Topic Name : APTITUDE

Sub-topic Name : APTITUDE

Course link : <https://ineuron.ai/course/Pro-Aptitude---Data-Structures-and-Algorithms>

Course Description :-

This course is designed mostly for Data structure and Algorithms test takers.

Course Features :-

=> Quizzes

=> Course completion certificate

What you will learn :-

=> DSA Theoretical Test

=> DSA Practical Test

Requirements :-

=> System with minimum i3 processor or better

=> At least 4 GB of RAM

=> Working internet connection

=> Dedication to solve

Curriculum details :-

=> Data structure and Algorithms Test :

~ *DSA Test 1*

~ *DSA Test 2*

~ *DSA Test 3*

~ *DSA Test 4*

MySQL

Topic Name : DATABASE

Sub-topic Name : MYSQL

Course link : <https://ineuron.ai/course/MySQL>

Course Description :-

Data practitioners must master SQL since it is the most essential query language you can learn. Many prominent relational database management systems such as MySQL employ it. However, data analysis and big data frameworks and tools such as Apache Spark also utilise it. As a result, learning MySQL offers up a plethora of prospects and occupations - whether you want to work with relational databases or become a data scientist, knowing Mysql is essential. Even if you have no previous experience of MySQL, this practical course will build the groundwork for SQL and structured database querying.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => MySQL tables
- => Primary keys and foreign keys
- => CRUD operations
- => SQL queries
- => Joins
- => ACID in database
- => Database engines

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

=> Introduction and installation of MySQL :

- ~ Introduction to section 1
- ~ MySQL introduction - 5 points to know
- ~ Mysql Installation MAC
- ~ MySQL installation for Windows

=> Basics of MySQL :

- ~ Introduction to section 2
- ~ Creating and dropping database - Startup
- ~ Resolving the issue for future
- ~ Creating your first table
- ~ Adding values to canon table
- ~ Answering customer question

=> Playing with data :

- ~ Introduction to section 3
- ~ Primary key, default and NULL
- ~ Table with primary key and default values
- ~ Testing the new table
- ~ Adding new values and answering questions
- ~ update in customers table
- ~ delete from the customers table

=> More on functions :

- ~ Introduction to section 4
- ~ Understand the new lco user DB
- ~ Task for CONCAT
- ~ Task for REPLACE
- ~ task for SUBSTRING
- ~ Task for reverse and CHAR_LENGTH
- ~ Task for case conversion and DOCS

=> Answering some DB questions :

- ~ Introduction to section 5
- ~ A task on DISTINCT
- ~ A task for ORDER BY
- ~ A task on LIMIT
- ~ Match the pattern
- ~ A task on COUNT
- ~ SQL MODES and GROUP BY
- ~ MIN MAX and SUBQUERIES
- ~ GROUP BY with MAX and MIN
- ~ SUM and AVERAGE with GROUP BY
- ~ A task on AND OR
- ~ A task in RANGE based selection
- ~ CASE THEN - multiple range selection

=> A pinch of theory :

- ~ Introduction to section 6
- ~ Data type for INTEGER and STRING
- ~ Data type for DATE, DATETIME and JSON
- ~ DATE TIME code Example
- ~ Get the date and time
- ~ Lets join tom and jerry tables
- ~ Types of JOIN

=> FOREIGN KEY and JOINS :

- ~ Introduction to section 7
- ~ Code talk over FOREIGN keys
- ~ Understand a new database
- ~ A task on INNER join
- ~ ONE to MANY and MANY TO MANY
- ~ Join more 3 or more tables
- ~ A task on LEFT JOIN
- ~ A task on RIGHT JOIN
- ~ FULL OUTER join and UNION tasks

=> A pinch of more theory :

- ~ Introduction to section 8
- ~ Database engines - INNODB and more
- ~ ACID in database

=> A 30 Task assignment for movie DB :

- ~ Introduction to section 9
- ~ How to practice database works - FILM

=> Final exam - single attempt :

- ~ MYSQL Outro and some free resources

Alteryx Course

Topic Name : DATA ANALYTICS

Sub-topic Name : DASHBOARDING

Course link : <https://ineuron.ai/course/Alteryx-Course>

Course Description :-

Data preparation, blending, sophisticated analytics, and sharing of findings are becoming more popular in Self-Service Data Analytics.

The worldwide operational analytics market is predicted to expand at an exponential scale by 2021, according to Research and Markets. They want data they can act on within a matter of hours, not weeks. Preparing, blending and analyzing data using a repeatable procedure with Alteryx Analytics is easy for analysts.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => ALTERYX - Directory Tool
- => ALTERYX - Browse Tool
- => ALTERYX - TABLE TOOL
- => ALTERYX - CREATE SAMPLE TOOL

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Pawan Lalwani :

~ Pawan is a highly skilled and self motivated trainer who has expertise in various business intelligence tools like Power BI, Tableau and Microsoft Excel. He comes with 10 years of experience in training individuals in different industry sectors like Banking, Finance, Healthcare, IT, Automobile, Manufacturing and Pharmaceutical.

Curriculum details :-

=> Introduction :

- ~ Introduction to Alteryx
- ~ Download and Install Alteryx
- ~ User Interface of Alteryx

=> IN/Out Tab :

- ~ ALTERYX - Get Data from Excel
- ~ ALTERYX - Get Data from CSV
- ~ ALTERYX - Append All CSV files
- ~ ALTERYX - Browse Tool
- ~ ALTERYX - Output Tool - Update Existing Data
- ~ ALTERYX - Directory Tool
- ~ ALTERYX - Directory Tool - Specific Files
- ~ ALTERYX - Text Input Tool
- ~ ALTERYX - Date and Time Tool

=> Preparation Tab :

- ~ ALTERYX - Auto Field Tool
- ~ ALTERYX - Data Cleansing Tool Part 1
- ~ ALTERYX - Data Cleansing Tool - Part 2
- ~ ALTERYX - Filter Tool (Text Example)
- ~ ALTERYX - Filter Tool (Number Example)
- ~ ALTERYX - Filter Tool (Date Example)
- ~ ALTERYX - FORMULA TOOL (Basic Example)
- ~ ALTERYX - FORMULA TOOL - (Multiple Examples)
- ~ ALTERYX - GENERATE ROWS TOOL
- ~ ALTERYX - IMPUTATION TOOL
- ~ ALTERYX - MULTI-FIELD BINNING TOOL
- ~ ALTERYX - MULTI-FIELD FORMULA
- ~ ALTERYX - MULTI ROW FORMULA

- ~ ALTERYX - RANDOM % SAMPLE TOOL
- ~ ALTERYX - SAMPLE TOOL
- ~ ALTERYX - RECORD ID TOOL
- ~ ALTERYX - SELECT TOOL
- ~ ALTERYX - SORT
- ~ ALTERYX - CREATE SAMPLE TOOL
- ~ ALTERYX - TILE TOOL
- ~ ALTERYX - UNIQUE TOOL

=> Join Tab :

- ~ ALTERYX - APPEND FIELDS TOOL
- ~ ALTERYX - FIND AND REPLACE TOOL
- ~ ALTERYX - FUZZY MATCH TOOL
- ~ ALTERYX - JOIN TOOL
- ~ ALTERYX - JOIN MULTIPLE TOOL
- ~ ALTERYX - UNION TOOL
- ~ REGEX TOOL
- ~ Text To Columns

=> Transform Tab :

- ~ ALTERYX - CROSS TAB Tool
- ~ ALTERYX - TRANSPOSE Tool
- ~ ALTERYX - RUNNING TOTAL Tool
- ~ ALTERYX - SUMMARIZE TOOL

=> Reporting Tab :

- ~ ALTERYX - TABLE TOOL
- ~ ALTERYX - INTERACTIVE CHART Tool
- ~ ALTERYX - JOIN TABLE AND CHART
- ~ ALTERYX - ADD ANNOTATION
- ~ ALTERYX - REPORT TEXT TOOL
- ~ ALTERYX - REPORT HEADER TOOL
- ~ ALTERYX - REPORT FOOTER TOOL
- ~ ALTERYX - REPORT LAYOUT TOOL

=> Documentation Tab :

- ~ ALTERYX - COMMENT TOOL
- ~ ALTERYX - EXPLORER TOOL
- ~ ALTERYX - CONTAINER TOOL

=> Case Studies :

- ~ Study 1
- ~ Study 2
- ~ Study 3
- ~ Study 4
- ~ Study 5

Machine Learning Bootcamp Tech Neuron

Topic Name : DATA SCIENCE

Sub-topic Name : MACHINE LEARNING

Course link : <https://ineuron.ai/course/Machine-Learning-Bootcamp-Tech-Neuron>

Course Description :-

In this Machine Learning Bootcamp you will learn technologies like Python, API, database, statistics, ML algorithms, deployment of ML models in various cloud platforms, and all machine learning algorithms. You will also learn about chatbots like Dialogflow, Amazon Lex, Azure Luis & RASA NLU. 15+ live projects are included to make your journey interesting from Zero to ML Engineer.

Course Features :-

- => Machine Learning in Depth
- => CI/CD pipeline for ML
- => End to End Model Deployment in Azure, GCP & AWS
- => Time Series end-to-end implementation in ML
- => 20 + hands-on industry real-time projects
- => Power BI and Tableau self-placed course
- => 150+ hours live interactive classes
- => Doubt clearing session after the live classes
- => Doubt clearing one-to-one
- => Doubt clearing through mail and support team
- => Assignment in all the modules
- => 20+ use cases of Machine learning
- => Live project with real-time implementation
- => Online Instructor-led learning

What you will learn :-

- => Python
- => APIs
- => Databases
- => Python projects
- => Numpy
- => Pandas
- => Visualizations
- => Stats
- => Supervised Machine learning Algorithms
- => Unsupervised Machine learning Algorithms
- => Dimensionality Reduction
- => Machine Learning Projects
- => Deep learning
- => PowerBI
- => Tableau
- => Chatbots

Requirements :-

- => Dedication
- => Laptop with internet connectivity

Instructors :-

=> krish naik :

~ Having 10+ years of experience in Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

=> Sunny Savita :

~ I'm an AI enthusiast, graduate in Computer science and engineering. Currently working with iNeuron.ai as a Data Scientist and having 2+ years of experience. I have skills in big data, machine learning, computer vision, Natural language processing. My expertise also includes project design development and implementation with AIOps tools.

Curriculum details :-

=> Course Introduction :

- ~ *Introduction of Data Science, AI, ML, DL and its application in Day to Day life*
- ~ *Course overview and Dashboard description*

=> Installation and setup of the required software :

- ~ *Installation and setup of Anaconda Distribution*
- ~ *Installation and setup of Pycharm and VScode*
- ~ *Complete walk-through of Jupyter Notebook in local*
- ~ *Setup of Google Colab with GPU*
- ~ *Create a virtual environment through anaconda and project setup*

=> Introduction of Python :

- ~ *Python Introduction and comparison with other Programming language*
- ~ *Important Features of python*
- ~ *Testing Python Installation with hello world*
- ~ *Introduction To Predefined Functions And Modules*
- ~ *How print() function works ?*
- ~ *How To Remove Newline From print() ?*
- ~ *Rules For Identifiers, Python Reserved Words, Data Types In Python*
- ~ *Operators Arithmetic, Bitwise, Comparison and Assignment operators, Operators Precedence and associativity*
- ~ *Compound Operators, Identity Operators, Membership Operators*

=> String :

- ~ *What Is A String ?*
- ~ *Creating A String*
- ~ *Different Ways Of Accessing Strings*
- ~ *Operators Which Work On Strings*
- ~ *Built In String Functions*
- ~ *Printing string using f-string*
- ~ *Modifying Strings*
- ~ *String conversion methods*
- ~ *String comparison methods*
- ~ *String searching methods*
- ~ *String replace methods*

=> List :

- ~ *What Is A List ?*
- ~ *Creating A List*
- ~ *Accessing The List Elements*
- ~ *Adding New Data In The List*
- ~ *The Slice Operator With List*
- ~ *Modifying A List*
- ~ *Deletion In A List*
- ~ *Appending / Prepending Items In A List*
- ~ *Multiplying A List*
- ~ *Membership Operators On List*
- ~ *Built In Functions For List*
- ~ *Methods Of List*
- ~ *List Comprehension*

=> Tuples :

- ~ *What Is A Tuple and how to create Tuple*
- ~ *Differences between List and Tuples*
- ~ *Benefits Of Tuple*
- ~ *Packing / Unpacking A Tuple*
- ~ *Accessing A Tuple*
- ~ *Changing The Tuple*
- ~ *Deleting The Tuple*
- ~ *Functions Used With Tuple*
- ~ *Methods Used With Tuple*
- ~ *Operations Allowed On Tuple*

=> Dictionaries and set :

- ~ *What Is A Dictionary ?*
- ~ *What Is Key-Value Pair ?*
- ~ *Creating A Dictionary*
- ~ *Important Characteristics Of A Dictionary*
- ~ *Different Ways To Access A Dictionary*
- ~ *Updating Elements In Dictionary*
- ~ *Removing Elements From Dictionary*
- ~ *Functions Used In Dictionary*
- ~ *Dictionary Methods*
- ~ *Set introduction*
- ~ *Set methods*

=> Decision Control Statements and loops in python :

- ~ *if Statement*
- ~ *Concept of Indentation*
- ~ *if-else Statement*
- ~ *if-elif-else Statement*
- ~ *Types of loop supported by Python*
- ~ *while loop*
- ~ *while-else loop*
- ~ *Break, continue and pass Statement*
- ~ *for Loop*
- ~ *for Loop In Python*
- ~ *Differences with other languages*
- ~ *range() Function*

~ Using for with range()

=> Python Functions :

- ~ What Is A Function ?
- ~ Function V/s Method
- ~ Steps Required For Developing User-Defined Function
- ~ Calling A Function
- ~ Returning Values From Function
- ~ Arguments V/s Parameters
- ~ Types Of Arguments
- ~ Variable Scope
- ~ Local Scope
- ~ Global Scope
- ~ Argument Passing
- ~ Anonymous Functions OR Lambda Function
- ~ The map() Function
- ~ The filter() Function
- ~ Using map() and filter() with Lambda Expressions
- ~ Iterators Generator functions

=> OOPS Concepts :

- ~ Procedure Oriented Programming vs Object Oriented Programming
- ~ What Is A Classes and Object ?
- ~ __init__() Method
- ~ Types Of variable in class
- ~ Types Of Methods in class
- ~ Difference Between local variable, class variable and Instance variable
- ~ Difference Between Instance Method, Class Method and Static Methods
- ~ concept of Encapsulation
- ~ How To Declare Private Members In Python ?
- ~ The setattr() And getattr() Functions
- ~ object Class, __repr__() and __str__() methods
- ~ concept of Inheritance
- ~ Types Of Inheritance
- ~ Single Inheritance
- ~ Using super()
- ~ Method Overriding
- ~ MultiLevel Inheritance
- ~ Hierarchical Inheritance
- ~ Multiple Inheritance
- ~ The MRO Algorithm
- ~ Hybrid Inheritance
- ~ The Diamond Problem
- ~ Operator Overloading

=> Exception Handling :

- ~ Introduction To Exception Handling
- ~ Exception Handling Keywords
- ~ Exception Handling Syntax
- ~ Handling Multiple Exceptions
- ~ Handling All Exceptions

=> Python logging :

- ~ What is logging?
- ~ When to use logging?
- ~ Logging to a file
- ~ Different level of logging
- ~ Logging from multiple module
- ~ Logging variable data
- ~ Display Date&Time in logging file

=> Working With Files :

- ~ Working with files
- ~ Reading and writing files
- ~ Buffered read and write
- ~ Other File methods

=> Database :

- ~ What Is A Database ?
- ~ Steps Needed For Connecting To mysql From Python
- ~ Exploring Connection And Cursor Objects
- ~ Executing The SQL Queries
- ~ Different Ways Of Fetching The Data
- ~ Executing INSERT Command
- ~ Executing Update Command
- ~ Executing Delete Command
- ~ Introduction MongoDB
- ~ What is Apache Atlas and features of Apache Atlas
- ~ MongoDB atlas setup
- ~ Querying the documents
- ~ Finding, Inserting, Deleting & Updating elements
- ~ Bulk insert operations
- ~ Updating multiple document
- ~ Understanding insertOne vs insertMany()
- ~ Updateone() vs updateMany()
- ~ Understanding find() & fetchall()
- ~ Understanding "deleteOne()" & "deleteMany()"
- ~ Filtering documents

=> API :

- ~ Flask Introduction

- ~ Flask variable rules
- ~ Flask templates and static files
- ~ App Routing Flask
- ~ URL Building Flask
- ~ HTTP Methods Flask
- ~ Flask requesting object
- ~ Flask sending Form data to Template

=> Python Pandas Modules :

- ~ Pandas Series
- ~ Pandas DataFrame
- ~ Pandas Panel
- ~ Pandas Basic functionality
- ~ Pandas read csv
- ~ Pandasread json
- ~ Pandas reading data from mysql
- ~ Pandas aggregations
- ~ Pandas group by
- ~ Pandas merging and joining
- ~ Pandas concatenation operation
- ~ Pandas date functionality
- ~ Pandas .loc() and .iloc() function
- ~ Pandas windows functions
- ~ Pandas indexing and selecting data
- ~ Cleaning data with pandas
- ~ Working with missing data
- ~ Working with categorical data

=> Python Numpy Modules :

- ~ NumPy Narray Object
- ~ NumPy Data Types
- ~ NumPy Array Attributes
- ~ NumPy Array Creation Routines
- ~ NumPy Array from Existing
- ~ Data Array From Numerical Ranges
- ~ NumPy Indexing & Slicing
- ~ NumPy Advanced Indexing
- ~ NumPy Broadcasting
- ~ NumPy Iterating Over Array
- ~ NumPy Array Manipulation
- ~ NumPy Binary Operators
- ~ NumPy String Functions
- ~ NumPy Mathematical Functions
- ~ NumPy Arithmetic Operations
- ~ NumPy Statistical Functions
- ~ Sort , Search & Counting Functions
- ~ NumPy Byte Swapping
- ~ NumPy Copies Views
- ~ NumPy Matrix Library
- ~ NumPy Linear Algebra

=> Python Visualization Modules :

- ~ Matplotlib Pyplot
- ~ Matplotlib Plotting
- ~ Matplotlib Subplot
- ~ Matplotlib Line Chart
- ~ Matplotlib Bar Chart
- ~ Matplotlib Histogram Chart
- ~ Matplotlib Pie chart
- ~ Seaborn Histogram
- ~ Seaborn Kernel density estimates
- ~ Seaborn Facet grid
- ~ Seaborn Pairgrid
- ~ Seaborn Boxplot, violin plot and contour plot
- ~ Seaborn Countplot
- ~ Seaborn Heatmap
- ~ Plotly Barchart histogram and pie chart
- ~ Plotly scatter plot and Bubble chart
- ~ Plotly distplot, density plot, and error bar plot
- ~ Plotly Heatmap
- ~ Plotly 3-D scatter plot and surface plot
- ~ Plotly with pandas and cufflinks
- ~ Plotly with matplotlib and chartstudio
- ~ Visualizing pairwise relationship
- ~ Finding statical estimation
- ~ Finding linear relationship
- ~ Finding correlation between variable

=> Statistics :

- ~ Introduction
- ~ Different types of Statistics
- ~ Population vs Sample
- ~ Mean, Median and Mode
- ~ Variance, Standard Deviation
- ~ Sample Variance why n-1
- ~ Standard Deviation
- ~ Variables
- ~ Random Variables
- ~ Percentiles & quartiles
- ~ 5 number summary

- ~ Histograms
- ~ Gaussian - Normal distribution
- ~ Standard Normal distribution
- ~ Application Of Zscore
- ~ Basics Of Probability
- ~ Addition Rule In Probability
- ~ Multiplication rule in probability
- ~ Permutation
- ~ Combination
- ~ Log Normal Distribution
- ~ Central Limit theorem
- ~ Statistics - Left Skewed And Right Skewed Distribution And Relation With Mean, Median And Mode
- ~ Covariance
- ~ Pearson And Spearman Rank Correlation
- ~ What is P Value
- ~ What is Confidence Intervals
- ~ How To Perform Hypothesis Testing - Confidence IntervalZ Test Statistics Derive Conclusion
- ~ Hypothesis testing part 2
- ~ Hypothesis testing part 3
- ~ Finalizing statistics

=> Exploratory Data Analysis :

- ~ Feature Engineering and Selection
- ~ Create a profile of the data
- ~ Perform statical analysis
- ~ Building Tuning and Deploying Models
- ~ Perform EDA with automated library
- ~ Analyzing Bike Sharing Trends
- ~ Analyzing Movie Reviews Sentiment
- ~ Customer Segmentation and Effective Cross Selling
- ~ Analyzing Wine Types and Quality
- ~ Analyzing Music Trends and Recommendations
- ~ Forecasting Stock and Commodity Prices

=> Machine Learning Module 1 :

- ~ Introduction of machine learning
- ~ Difference between Supervised, Unsupervised & Semi-supervised
- ~ Linear Regression Mathematical Institution
- ~ Linear Regression assumption.
- ~ OLS
- ~ Different Training methodology
- ~ Train, Test, Validation Split
- ~ Hands-on linear regression in python from scratch
- ~ Complete hands-on with scikit learn
- ~ Overfitting & Underfitting
- ~ Ridge Regression
- ~ Lasso Regression
- ~ Elastic Net Regression
- ~ Polynomial Regression
- ~ Logistics regression
- ~ Difference between Linear Regression and Logistic Regression
- ~ Performance matrix
- ~ Confusion matrix
- ~ Precision, Recall, ROC, AUC Curve
- ~ F-beta Score

=> Machine Learning Module 2 :

- ~ SVR(support vector regressor)
- ~ SVC(support vector classifier)
- ~ SVM(Support vector machine)
- ~ KNN Classifier
- ~ KNN Regressor
- ~ K Nearest Neighbour
- ~ Lazy learners
- ~ KNN Issues
- ~ Performance measurement of KNN

=> Machine Learning Module 3 :

- ~ Decision Tree Classifier
- ~ Decision tree Regressor
- ~ Cross Validation
- ~ Bias vs Variance
- ~ Ensemble approach
- ~ Bagging
- ~ Boosting
- ~ Stacking
- ~ Random Forest

=> Machine Learning Module 4 :

- ~ Ada boosting
- ~ Gradient boosting
- ~ XGBoosting
- ~ Hands-on XgBoost

=> Unsupervised Machine Learning :

- ~ Introduction to K-Means Clustering
- ~ Hard K-Means clustering
- ~ Soft K-Means clustering
- ~ Visualizing Each Step of K-Means
- ~ How to Choose K value

- ~ Advantages and Disadvantages of K-Means Clustering
- ~ Examples of where K-Means can fail
- ~ How to Evaluate a Clustering algorithm
- ~ Silhouette Coefficient
- ~ Dunn's Index
- ~ Python implementation using K-Means on Real Data
- ~ Real-time Clustering Application
- ~ Visual Walkthrough of Agglomerative Hierarchical Clustering
- ~ Using Hierarchical Clustering in Python and Interpreting the Dendrogram
- ~ python implementation of Agglomerative Clustering
- ~ DBSCAN: A Density-Based Clustering Algorithm
- ~ How to use DBSCAN: A Density-Based Clustering Algorithm for outlier detection
- ~ Python implementation of DBSCAN

=> Dimension Reduction Techniques :

- ~ Principal Component Analysis (PCA)
- ~ T-distributed Stochastic Neighbor Embedding(t-SNE)
- ~ Curse of Dimensionality

=> Natural Language Processing :

- ~ Text Analytics
- ~ Tokenizing, Chunking
- ~ Document term
- ~ Matrix TFIDF
- ~ Sentiment analysis hands-on
- ~ Naive Bayes classifier

=> Deep Learning :

- ~ Deep Learning Introduction.
- ~ Neural Network Architecture.
- ~ Loss Function.
- ~ Cost Function.
- ~ Optimizers.
- ~ CNN architecture.
- ~ Build First Classifier in CNN.
- ~ Deploy Classifier over cloud.
- ~ RNN overview.
- ~ GRU.
- ~ LSTM.
- ~ Time Series using RNN LSTM.
- ~ Customer Feedback analysis using RNN LSTM.

=> Time series :

- ~ Arima
- ~ Sarima .
- ~ Auto Arima
- ~ Time series using RNN LSTM .
- ~ Prediction of NIFTY stock price.

=> Machine Learning Deployment :

- ~ Deployment of all the project in Cloudfoundary, AWS, AZURE & Google Cloud Platform
- ~ Expose api to web browser and mobile application retraining approach of Machine learning model
- ~ Devops infrastructure for machine learning model
- ~ Database integration and scheduling of machine learning model and retraining custom machine learning training approach.
- ~ AUTO ML
- ~ Discussion on infra cost and data volume
- ~ Prediction based on streaming data

=> Machine Learning Extra Sessions :

- ~ Discussion on project explanation in interview
- ~ Data scientist roles and responsibilities
- ~ Data scientist day to day work
- ~ Companies which hire a data scientist
- ~ Resume discussion with our team one to one

End to End Object Detection

Topic Name : DATA SCIENCE

Sub-topic Name : COMPUTER VISION

Course link : <https://ineuron.ai/course/End-to-End-Object-Detection>

Course Description :-

Become an Object Detection Guru with the latest frameworks available like Tensorflow, Detectron2 and Yolo. In this course you will be learning to create four different object detector using multiple frameworks from scratch.

Course Features :-

- => Lifetime Dashboard Access
- => Certificate
- => End to End Project
- => Self paced classes

What you will learn :-

- => Python Basics
- => Flask Development
- => Pycharm Basics
- => Debug Applications
- => Tensorflow1.x Object Detection
- => Tensorflow2.x Object Detection
- => Detectro2 Object Detection/Segmentation
- => Yolo Object Detection
- => Working with Images
- => Working with Videos

Requirements :-

- => Computer with Internet Connectivity
- => Basic Python Knowledge
- => 8GB RAM preferred
- => Intel Core i5 preferred
- => Windows/Linux/MAC Preferred

Instructors :-

=> Sourangshu Pal :

~ Visual Computing Engineer and instructor at iNeuron.ai having 3 years of diverse experience in the discipline of visual computing with specialization in Deep Learning and Computer Graphics. Loves to analyze, process, and model visual data then interpret the insights to create actionable plans for solving challenging business problems.

Curriculum details :-

=> Introduction to Course :

- ~ Introduction to Course Preview
- ~ Who is this Course for? Preview
- ~ Course Overview
- ~ Course Outcome
- ~ Installing Anaconda, Pycharm & Postman
- ~ Working with Conda Envs
- ~ Pycharm Introduction
- ~ Pycharm with Conda
- ~ Pycharm with venv
- ~ Pycharm with Pipenv

=> Covering Python Basics :

- ~ Introduction
- ~ Building a Calculator
- ~ Working with Command Line Arguments
- ~ Building the Flask Application
- ~ Testing our App in POSTMAN
- ~ Learn to Debug with Pycharm
- ~ Adding an UI to our Web App

=> Understand Object detection theoretically :

- ~ Introduction
- ~ What is Object Detection?
- ~ What are Bounding Boxes?

- ~ Metrics used in Object Detection
- ~ Applications of Object Detection

=> Object Detection using Tensorflow 1.x :

- ~ Introduction
- ~ Introduction to TFOD1.x
- ~ Using Google Colab with Google Drive
- ~ Installation of Libraries in Colab
- ~ TFOD1.x Setup in Colab
- ~ Visiting the Model Zoo
- ~ Inferencing in Colab
- ~ Inferencing in Local
- ~ Important Configuration Files
- ~ Webcam Testing

=> Training a Custom Mask Detector using Tensorflow1.x :

- ~ Introduction
- ~ Our Custom Dataset
- ~ Doing Annotations or labeling data
- ~ Preparing the Dataset for Training
- ~ Selection of Pretrained Model from Model Zoo
- ~ Files Setup for Training
- ~ Let's start Training
- ~ Resume or Stop Training
- ~ Converting CKPT to Frozen Inference Graph
- ~ Inferencing with our trained model

=> Creating an End To End Mask Detector Web Application with TFOD1 :

- ~ Introduction
- ~ Creating a Pycharm project & Environment Setup
- ~ Debugging our Application
- ~ Testing our App with PoSTmaN
- ~ Adding an UI to our Web APP

=> Object Detection using Tensorflow 2.x :

- ~ Introduction
- ~ Introduction to TFOD2.x
- ~ Installation of Libraries in Colab
- ~ Visting TFOD2.x Model Garden
- ~ Inference using Pretrained Model
- ~ Important Configuration Files
- ~ Inferencing in Local with a pretrained model

=> Training a Custom Chess Piece Detector using Tensorflow2 :

- ~ Introduction
- ~ Our Custom Dataset
- ~ Doing Annotations or labeling data
- ~ Preparing the Dataset for Training
- ~ Selection of Pretrained Model from Model Zoo
- ~ File Setup for Training
- ~ Let's start Training
- ~ Stop Training or resume Training
- ~ Convert CKPT to Saved Model
- ~ Inferencing using the Custom Trained Model in Colab
- ~ Inferencing using the Custom Trained Model in Local PC

=> Creating an End To End Chess Piece Detector Web Application with TFOD2 :

- ~ Introduction
- ~ Creating a Pycharm project & Environment Setup
- ~ Building a Flask Application
- ~ Debugging our Application
- ~ Testing our App with PoSTmaN
- ~ Adding an UI to our Web APP

=> Object Detection using Detectron2 :

- ~ Introduction
- ~ Introduction to Detectron2
- ~ Installing libraries in Google Colab
- ~ Visiting the Model Zoo
- ~ Inferencing using Pre Trained Model

=> Training a Custom Detector using Detectron2 :

- ~ Introduction
- ~ Our Custom Dataset
- ~ Doing Annotations or labeling data
- ~ Registering Dataset for Training
- ~ Selection of Pretrained Model from Model Zoo
- ~ Let's start Training
- ~ Stop Training or resume Training
- ~ Inferencing using the Custom Trained Model in Colab
- ~ Evaluating the Model

=> Creating an End To End Custom Detector Web Application with Detectron2 :

- ~ Introduction
- ~ Creating a Pycharm project & Environment Setup
- ~ Building a Flask Application
- ~ Debugging our Application
- ~ Testing our App with PoSTmaN
- ~ Adding an UI to our Web APP

=> Object Detection using YoloV5 :

- ~ Introduction

- ~ *Introduction to YoloV5*
- ~ *Inferencing using Pre Trained Model*

=> Training a Custom Warehouse Apparel Detector using YoloV5 :

- ~ *Introduction*
- ~ *Our Custom Dataset*
- ~ *Doing Annotations or labeling data*
- ~ *Preparing the Dataset for Training*
- ~ *Let's start Training*
- ~ *Inferencing using the Custom Trained Model in Colab*

=> Creating an End To End Warehouse Apparel Detector Web Application with YOLOV5 :

- ~ *Introduction*
- ~ *Creating a Pycharm project & Environment Setup*
- ~ *Building a Flask Application*
- ~ *Debugging our Application*
- ~ *Testing our App with PoSTmaN*
- ~ *Adding an UI to our Web APP*

Project details :-

=> Mask detector

=> Chess Piece detector

=> Mixed Classes detector

=> Warehouse Apparel detector

Manual Testing Foundations

Topic Name : TESTING

Sub-topic Name : MANUAL TESTING

Course link : <https://ineuron.ai/course/Manual-Testing-Foundations>

Course Description :-

This course will help you get started with Software Testing. We will discuss different terms and terminologies to develop a QA mindset. We will also discuss about roles and responsibilities of a software tester and what are the day-to-day activities that you have to perform as a tester. You will also learn STLC (Software Testing Life Cycle) and its different phases and at the end, we will use a very useful in-demand tool called "JIRA".

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Objectives of Testing
- => Scope of Testing
- => Prerequisites of becoming a Tester
- => Potential growth in the Software Testing Career
- => Roadmap to a testing career
- => Phases of Testing
- => Unit Testing
- => Integration Testing
- => System Testing
- => UAT Testing -Alpha & Beta Testing
- => Deployment Process

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Kiran Sahu :

~ QA Manager with 12+ years of professional experience, worked in Brands like Infosys, Delhivery, Mydala, Aurea, Jive, Crossover, Agama Solutions & OSTC, have experience of working in global platforms and with multinational professionals. Strong domain knowledge on Retail, Logistics, Banking, Trading, Ecommerce Applications. Experience in Training and Mentoring Candidates all across the globe on Software Testing, MySQL and Agile.

Curriculum details :-

=> Getting Started with Software Testing and STLC :

- ~ Basics of Software Testing
- ~ Need of Software Testing
- ~ Objectives of Testing
- ~ Scope of Testing
- ~ Prerequisites of becoming a Tester
- ~ Potential growth in the Software Testing Career
- ~ Roadmap to a testing career
- ~ SDLC
- ~ STLC
- ~ SDLC Vs STLC

=> Phases of Testing and Types of Testing :

- ~ Phases of Testing
- ~ Unit Testing
- ~ Integration Testing
- ~ System Testing
- ~ UAT Testing -Alpha & Beta Testing

- ~ *Deployment Process*
- ~ *Ecommerce Project Example*
- ~ *Types of Testing*

=> JIRA- A Complete Overview :

- ~ *Introduction to JIRA*
- ~ *Introduction to Agile*
- ~ *What is Scrum*
- ~ *What is Sprint Cycles*
- ~ *Importance of Jira in Agile*
- ~ *Project Management using Jira in Agile*
- ~ *Bug Tracking using Jira in Agile*
- ~ *Sprint Report- Burndown Chart in Jira*

Deep Authenticator

Topic Name : DATA SCIENCE

Sub-topic Name : COMPUTER VISION PROJECT

Course link : <https://ineuron.ai/course/Deep-Authenticator>

Course Description :-

In this project, you will build a two-stage authentication system. We would be using state-of-art algorithms like FaceNet and MTCNN to build this project.

Course Features :-

- => Do Everything In Industry Grade Lab
- => Learn As Per Your Timeline
- => Hands-On Industry Real-Time Projects.
- => Self Paced Learning
- => Dashboard Access

What you will learn :-

- => Real Time Projects
- => Deep Authenticator
- => Authentication and Authorization
- => MTCNN
- => FaceNet
- => FastAPI
- => Azure Container Registry and Azure App Service
- => GitHub Actions CI/CD

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

=> Rishav Dash :

~ This is Rishav Dash. I am a Jr. Data Scientist and mentor at INeuron.ai with working experience in computer vision, natural language processing, Machine Learning, and Alops. Hands-on experience leveraging machine learning, deep learning, transfer learning models to challenging real-world problems, and building products to solve peoples problems.

Curriculum details :-

=> Welcome to the Course :

- ~ Course Overview
- ~ Dashboard Introduction

=> Project :- Deep Authenticator :

- ~ Introduction of Instructor
- ~ Project Overview
- ~ End Notes
- ~ Problem Statement
- ~ Understand the application scope
- ~ Tour to existing solution
- ~ End Notes
- ~ Solution Description
- ~ Tech Stack used
- ~ Tour to Architecture diagram
- ~ cost involved
- ~ End Notes
- ~ Folder Structure overview
- ~ Environment and Project Setup
- ~ User Login Authentication
- ~ Login Embedding Generation
- ~ User Registration Authentication
- ~ Registration Embedding Generation
- ~ Running project locally
- ~ Running project using Docker
- ~ End Notes
- ~ Azure cloud overview and Services overview
- ~ Provisioning Resources in cloud

- ~ *Pushing Docker Image to Azure Container Registry*
- ~ *Deploying to Azure App Services*
- ~ *CI/CD using GitHub Actions*
- ~ *Conclude the project*
- ~ *Assignments & External Resources*

Docker

Topic Name : DEVOPS

Sub-topic Name : DOCKER

Course link : <https://ineuron.ai/course/Docker>

Course Description :-

Docker makes it easier to create, share, and operate contemporary programmes. Docker is a programme that uses containers to make it easier to construct, deploy, and manage applications.

Course Features :-

- => Source code
- => Downloadable resources
- => Quizzes
- => Completion certificate

What you will learn :-

- => Docker & its architecture
- => Docker as a service
- => Docker CLI
- => Docker Volumes
- => Port Mapping
- => Dockerizing a web application

Requirements :-

- => Prior knowledge of linux
- => A System with good internet connection
- => How the bash works
- => Interest to learn

=> Your dedication

Instructors :-

=> Sourangshu Pal :

~ Visual Computing Engineer and instructor at iNeuron.ai having 3 years of diverse experience in the discipline of visual computing with specialization in Deep Learning and Computer Graphics. Loves to analyze, process, and model visual data then interpret the insights to create actionable plans for solving challenging business problems.

Curriculum details :-

=> Docker Introduction :

- ~ Introduction
- ~ What is Docker?
- ~ Why Docker?
- ~ Benefits of Docker
- ~ What is Container?
- ~ Containers vs VM
- ~ Containers vs Image
- ~ Docker Editions
- ~ What Docker is not?
- ~ Important Terminologies
- ~ Docker Setup in Windows
- ~ Docker Setup in Linux
- ~ Docker Setup in Mac

=> Basic Usage :

- ~ Docker Basic Commands part 1
- ~ Docker Basic Commands part 2

=> Docker Run :

- ~ Docker Run Part 1
- ~ Docker Run Part 2

=> Docker Images :

- ~ Docker Images
- ~ Creating a new image
- ~ Environment variables
- ~ Commands & Entry Points

=> Docker Compose :

- ~ *Docker Compose*
- ~ *Voting Application Understanding*
- ~ *Docker Compose Versions*
- ~ *Docker Compose Networks*
- ~ *Voting Application with Docker Run*
- ~ *Voting Application with Docker Compose*

=> Docker Concepts :

- ~ *Docker Engine*
- ~ *Docker Storage*
- ~ *Docker Networking*
- ~ *Docker Registry*

Power BI Course

Topic Name : DATA ANALYTICS

Sub-topic Name : POWER BI

Course link : <https://ineuron.ai/course/Power-BI-Course>

Course Description :-

Learn why Power BI delivers a comprehensive collection of Business Intelligence tools for your data analysis needs, and how to utilise these tools to do all of the aforementioned activities and more in this course. It's a fantasy to be able to organise your data in a matter of minutes, effortlessly add computations to it, and then generate and share beautiful charts from the data.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Tables and Matrix in Power BI
- => Working with Maps
- => Cards and Filters
- => Power Query

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Pawan Lalwani :

~ Pawan is a highly skilled and self motivated trainer who has expertise in various business intelligence tools like Power BI, Tableau and Microsoft Excel. He comes with 10 years of experience in training individuals in different industry sectors like Banking, Finance, Healthcare, IT, Automobile, Manufacturing and Pharmaceutical.

Curriculum details :-

=> Introduction :

- ~ 1.1 Introduction to Power BI
- ~ 1.2 Download, Install and Update Features in Power BI

=> Basic Charts in Power BI :

- ~ 2.0 Basic Charts in Power BI Desktop
- ~ 2.1 Column Chart in Power BI
- ~ 2.2 Stacked Column Chart in Power BI
- ~ 2.3 Pie Chart in Power BI
- ~ 2.4 Donut Chart in Power BI
- ~ 2.5 Funnel Chart in Power BI
- ~ 2.6 Ribbon Chart
- ~ 2.7 Include and Exclude
- ~ 2.8 Export data from Visual

=> Working with Maps :

- ~ 3.0 Maps in Power BI
- ~ 3.1 Creating a Map in Power BI
- ~ 3.2 Filled Map
- ~ 3.3 Map with Pie Chart
- ~ 3.4 Formatting in Map
- ~ 3.5 Change Background in Map
- ~ 3.6 Map of India in Power BI
- ~ 3.7 Map of Australia in Power BI

=> Tables and Matrix in Power BI :

- ~ 4.0 Table and Matrix in Power BI
- ~ 4.1 Creating a Table in Power BI
- ~ 4.2 Formatting a Table
- ~ 4.3 Conditional Formatting in Table
- ~ 4.4 Aggregation in Table
- ~ 4.5 Matrix in Power BI

- ~ 4.6 Conditional Formatting in Matrix
- ~ 4.7 Hierarchies in Matrix
- ~ 4.8 Sub-Total and Total in Matrix
- ~ 4.9 Number Formatting in Table

=> Other Charts in Power BI :

- ~ 5.0 Other Charts in Power BI
- ~ 5.1 Line Chart in Power BI
- ~ 5.2 Drill Down in Line Chart
- ~ 5.3 Area Chart in Power BI
- ~ 5.4 Line vs Column Chart in Power BI
- ~ 5.5 Scatter Plot in Power BI
- ~ 5.6 Waterfall Chart in Power BI
- ~ 6.7 TreeMap in Power BI
- ~ 5.8 Guage Chart in Power BI

=> Cards and Filters :

- ~ 6.0 Cards and Filters in Power BI
- ~ 6.1 Number Card
- ~ 6.2 Text Card
- ~ 6.2.1 Formatting of Text Card
- ~ 6.3 Date Card
- ~ 6.3.1 Date Card (Relative Filtering)
- ~ 6.4 Multi-Row Card
- ~ 6.5 Filter on Visual
- ~ 6.6 Filter on This Page
- ~ 6.7 Filter on All Pages
- ~ 6.8 Drillthrough in Power BI

=> Slicers in Power BI :

- ~ 7.0 Slicers in Power BI
- ~ 7.1 Text Slicers in Power BI
- ~ 7.2 Formatting a Text Slicer
- ~ 7.3 Date Slicers in Power BI
- ~ 7.4 Formatting a Date Slicer
- ~ 7.5 Number Slicers in Power BI

=> Advanced Charts in Power BI :

- ~ 8.0 Advanced Charts in Power BI
- ~ 8.1 Animated Bar Chart Race
- ~ 8.2 Drill down donut Chart
- ~ 8.3 Drill down Column chart
- ~ 8.4 Word Cloud in Power BI
- ~ 8.5 Sankey Chart in Power BI
- ~ 8.6 Infographic in Power BI
- ~ 8.7 Play Axis in Power BI
- ~ 8.8 Scroller in Power BI
- ~ 8.9 Sunburst Chart in Power BI
- ~ 8.10 Histogram in Power BI

=> Objects in Power BI :

- ~ 9.1 Insert Image in Power BI
- ~ 9.2 Insert Text in Power BI
- ~ 9.3 Insert Shapes in Power BI
- ~ 9.4 Insert Buttons in Power BI
- ~ 9.5 Web URL Action in Power BI
- ~ 9.6 Page Navigation Action in Power BI
- ~ 9.7 Bookmark Action in Power BI
- ~ 9.8 Drillthrough Action in Power BI

=> Power BI Service Introduction :

- ~ 10.1 Create a Superstore Report in Power BI
- ~ 10.2 Create an Account on Power BI Service
- ~ 10.3 Publish Report to Power BI Service Account
- ~ 10.4 Export Power BI Report to PPT, PDF or PBIX
- ~ 10.5 Comment, Share and Subscribe to Power BI Report
- ~ 10.6 Create a Dashboard in Power BI Service
- ~ 10.7 Problem in Power BI Dashboard and its solution
- ~ 10.8 Automatic Refresh in Power BI using Gateway

=> Power Query - Text Functions :

- ~ 11.0 Text Functions in Power Query (Power BI)
- ~ 11.1 Merge Columns in Power Query (Power BI)
- ~ 11.2 Split and Trim in Power Query (Power BI)
- ~ 11.3 Upper, Lower and ProperCase in Power Query (Power BI)
- ~ 11.4 Prefix and Suffix in Power Query (Power BI)
- ~ 11.5 Left, Right and Mid Functions in Power Query (Power BI)
- ~ 11.6 Extract Text with Delimiters

=> Power Query - Date Functions :

- ~ 12.0 Date Functions in Power Query (Power BI)
- ~ 12.1 Year, Quarter, Month and Day Functions in Power Query (Power BI)
- ~ 12.2 Find Difference between Dates in Power Query (Power BI)
- ~ 12.3 Month and Day Name in Power Query (Power BI)
- ~ 12.4 Day, Week of Month, Year in Power Query (Power BI)
- ~ 12.5 Extract Date, Time in Power Query (Power BI)
- ~ 12.6 Calculate Age in Power Query (Power BI)
- ~ 12.7 Day of Year, Quarter, Month in Power Query (Power BI)

=> Power Query - Number Functions :

- ~ 13.0 Number Functions in Power Query (Power BI)

- ~ 13.1 Basic Number Functions in Power Query (Power BI)
- ~ 13.2 Percentage, Percent Of, Module in Power Query (Power BI)
- ~ 13.3 Round Functions in Power Query (Power BI)
- ~ 13.4 IsEven, IsODD, Sign in Power Query (Power BI)

=> Power Query - Append Files :

- ~ 14.1 Append multiple CSV files in a folder in Power Query (Power BI)
- ~ 14.2 Append multiple excel sheets, Tables in Power Query (Power BI)
- ~ 14.3 Append Excel sheets or Tables with different columns in Power BI
- ~ 14.4 Append multiple Excel files from a folder in Power BI
- ~ 14.5 Append different data sources in Power BI

=> Power Query - Merge Files :

- ~ 15.0 Merge Files and Tables in Power BI
- ~ 15.1 Merge Sheets or Tables in Power Query (Power BI)
- ~ 15.2 Merge Data from multiple Excel files or Workbooks in Power BI
- ~ 15.3 Merge data from different data sources in Power Query (Power BI)
- ~ 15.4 Merge data having multiple criteria in Power BI

=> Power Query - Conditional Columns :

- ~ 16.0 Conditional Column and Column from example in Power BI
- ~ 16.1 Column from examples in Power BI - Split Text
- ~ 16.2 Column from examples in Power BI - Merge Columns
- ~ 16.3 Column from Examples in Power BI - Date
- ~ 16.4 Column from Examples in Power BI - Alphanumeric
- ~ 16.5 Conditional Column in Power BI - One Column
- ~ 16.6 Conditional Column in Power BI - two columns
- ~ 16.7 Conditional Column in Power BI - Compare two columns
- ~ 16.8 Conditional Column in Power BI - on Dates

=> Power Query - - Important Topics :

- ~ 17.0 Very Important Topics in Power Query (Power BI)
- ~ 17.1 Fill Down in Power BI
- ~ 17.2 Grouping in Power Query (Power BI)
- ~ 17.3 Transpose in Power Query (Power BI)
- ~ 17.4 Unpivot In Power Query (Power BI)
- ~ 17.5 Data Types in Power Query (Power BI)
- ~ 17.6 Replace Errors and Values in Power Query (Power BI)
- ~ 17.7 Keep and Remove Rows in Power Query (Power BI)
- ~ 17.8 Add, Remove and Goto Columns in Power Query (Power BI)

=> M Language Introduction :

- ~ 18.0 M Language in Power Query
- ~ 18.1 Introduction to M Language
- ~ 18.2 IsIn Date Functions in M Language - Power BI
- ~ 18.3 Add and Subtract Date M Functions in Power BI
- ~ 18.4 Basic Date M Functions in Power BI
- ~ 18.5 Basic Text M Functions in Power BI
- ~ 18.6 Simple M Code in Power BI
- ~ 18.7 Trick to get all 900+ M Functions in Power BI

Mern Stack

Topic Name : WEB DEVELOPEMENT

Sub-topic Name : FULL STACK WEB DEVELOPMENT

Course link : <https://ineuron.ai/course/Mern-Stack>

Course Description :-

Learn how to build complete online applications with MongoDB, Express.js, React.js, and Nodejs. Mern stack is one of the most versatile tech stacks available. Learn front-end and hybrid mobile development, as well as server-side support, to build a multi-platform solution.

Course Features :-

- => Challenges
- => Assignments in each module
- => Quizzes
- => Downloadable resources
- => Completion certificate

What you will learn :-

- => HTML
- => CSS
- => Bootstrap
- => JAVASCRIPT
- => Bootstrap
- => Node js & Express js
- => Database
- => Validation
- => JWT
- => React js
- => GraphQL

Requirements :-

- => No Prior knowledge is required
- => A System with Internet Connection
- => Your dedication

Instructors :-

- => Syed Ashraf :
 - ~ Full Stack Engineer at TensorGo Technologies

Curriculum details :-

- => HTML :
 - ~ How do websites work? Preview
 - ~ HTML vs CSS vs Javascript
 - ~ HTML files
 - ~ Doctype & HTML Boilerplate
 - ~ Spaces & Line Breaks
 - ~ Heading Tag
 - ~ Paragraph & Pre Tag
 - ~ Difference between Elements, Attributes & Tags
 - ~ Comments
 - ~ Useful Tags
 - ~ Nesting of Tags
 - ~ Extensions in HTML
 - ~ Live Server in VSCode
 - ~ Formatting Tags
 - ~ Article in HTML
 - ~ Time & Address Tag
 - ~ Quote & Cite
 - ~ Strike
 - ~ Progress Bar
 - ~ Anchor Tag Styling
 - ~ Image Tag
 - ~ HTML Table
 - ~ List
 - ~ Input Tags,iframe

- ~ Forms
- ~ Video & Audio
- ~ iframe
- ~ Embed pdf
- ~ Maps
- ~ Symbols
- ~ Meta Tags
- ~ SVG
- ~ Emoji
- ~ Validate your HTML Code

=> CSS :

- ~ CSS Introduction Preview
- ~ Inline vs Internal vs External
- ~ Priority between Inline, Internal & External
- ~ Multiple Properties in Single Element
- ~ Types of Selectors
- ~ Priority between Id, Class & Element
- ~ Comments
- ~ Colors
- ~ Background
- ~ Border
- ~ Height & Width
- ~ Padding
- ~ Margin
- ~ Box Model
- ~ Text Properties
- ~ Anchor Tag Styling
- ~ Fonts
- ~ Cursor
- ~ !Important in CSS
- ~ Box Shadow
- ~ Opacity
- ~ Filter
- ~ Gradient
- ~ Overflow
- ~ List
- ~ Tables
- ~ Box Sizing
- ~ Inherit & Initial
- ~ Object Fit
- ~ Pseudo Classes
- ~ Pseudo Elements
- ~ Display
- ~ Position
- ~ Z-Index
- ~ Floats
- ~ 2D Transform
- ~ Transitions
- ~ Flex
- ~ Flex Direction & Wrap
- ~ Justify & Align in Flex
- ~ Order in Flex
- ~ Grow & Basis in Flex
- ~ Aling Items in Flex
- ~ Grids
- ~ Rows, Columns & Gap in Grids
- ~ Justify & Align in Grids
- ~ CSS Validator (Final Video)

=> JAVASCRIPT :

- ~ Introduction
- ~ Running Javascript in Browser
- ~ Console
- ~ Strings & Numbers
- ~ var, let & const
- ~ Data Types
- ~ Type Conversions
- ~ Arithmetic Operators
- ~ Assignment Operator
- ~ Comparision Operator
- ~ Logir Not, Or and And
- ~ Swap Numbers
- ~ String Handling
- ~ String Searching
- ~ Arrays
- ~ Objects
- ~ Dates
- ~ Maths
- ~ If & Else
- ~ Challenge - If & Else
- ~ Switch Case
- ~ Challenge - Switch Case
- ~ JS Loops
- ~ For Loops
- ~ Nested Loops
- ~ Break & Continue
- ~ Arrays, Strings & Objects
- ~ For-in

- ~ For-of
- ~ While Loops
- ~ Do while Loops
- ~ Loops Exercises
- ~ Functions
- ~ Variable Scopes in Functions
- ~ Nested Functions
- ~ Parameters & Arguments
- ~ How function is useful?
- ~ Return in Function
- ~ Anonymous Functions
- ~ Calculator Exercise
- ~ Arrow Functions
- ~ forEach
- ~ maps
- ~ String Literals
- ~ Filter, Reduce & Every
- ~ Spread Operator
- ~ Challenge
- ~ Window & Document
- ~ Document Access
- ~ innerText & innerHTML
- ~ HTML Calculator
- ~ Query Selector
- ~ Styling in JS
- ~ Advance DOM Manipulation
- ~ Events
- ~ Basic Events
- ~ Time Events
- ~ Pop-up Boxes
- ~ Error Handling
- ~ Form Validation
- ~ Asynchronous JS
- ~ this keyword
- ~ useStrict
- ~ Hoisting
- ~ Local Storage
- ~ Session Storage
- ~ Cookies
- ~ Cookies vs Local Storage vs Session Storage
- ~ JSON vs Object literals
- ~ API
- ~ Fetching
- ~ Methods & Status Codes
- ~ Post Method
- ~ Put Method
- ~ Guess the Number
- ~ Generators
- ~ Regex

=> Bootstrap :

- ~ Introduction
- ~ Bootstrap in Project
- ~ Containers
- ~ Buttons
- ~ Alerts
- ~ Badges
- ~ Button Groups
- ~ Cards in Bootstrap
- ~ Grids
- ~ Advance Column Properties
- ~ Image Slider
- ~ Dropdowns
- ~ Modal in Bootstrap
- ~ OffCanvas
- ~ Popovers
- ~ Spinners
- ~ Toast
- ~ Accordion
- ~ Bootstrap Navs
- ~ NavBars in Bootstrap
- ~ Forms
- ~ Helper Classes
- ~ Utilities Classes
- ~ Flex
- ~ Interactions
- ~ Utilities Properties
- ~ Typography in Bootstrap
- ~ Handling in Images & Tables
- ~ Build a Bootstrap Website

=> Nodejs :

- ~ Introduction & Installation
- ~ Global Objects
- ~ Modules
- ~ OS Module
- ~ Path Module
- ~ Fs Module
- ~ Advance Fs

- ~ *NPM*
- ~ *Http Server*
- ~ *Events*
- ~ *Streams*
- ~ *Express*
- ~ *Serving Files*
- ~ *Router*
- ~ *Post ,Query & Parameters*
- ~ *Adding routes & Validation*
- ~ *Middlewares*
- ~ *Controllers*
- ~ *Serving FTP & Compression*
- ~ *Async Express Route*
- ~ *Save API's from DDoS Attack*
- ~ *Uploading & Downloading*
- ~ *Nodemailer*
- ~ *Error Handling*
- ~ *Embedded Javascript Templates*

=> DataBase :

- ~ *SQL*
- ~ *SQL Basic Query with Nodejs*
- ~ *Mongo Shell*
- ~ *MongoDB Compass*
- ~ *MongoDB with Express*
- ~ *Mongoose Intro*
- ~ *ToDo API_01*
- ~ *ToDo API_02*
- ~ *ToDo API_03*
- ~ *ToDo API_04*
- ~ *ToDo API_05*
- ~ *ToDo API_06*
- ~ *ToDo API_07*
- ~ *MongoDB Atlas*
- ~ *Sequelize*
- ~ *Redis*
- ~ *Redis with Nodejs*

=> Validation :

- ~ *Joi Basics*
- ~ *Joi In-depth*
- ~ *Joi with Express*

=> JWT :

- ~ *Introduction*
- ~ *Using JWT*
- ~ *Basics*
- ~ *Setup*
- ~ *Database & Schema*
- ~ *Registering Users to Database*
- ~ *Validating Data*
- ~ *Hashing the password*
- ~ *Signin with JWT*
- ~ *Login Implementation*
- ~ *Verifying JWT Token*
- ~ *Generating Refresh Tokens*
- ~ *Generating pair of Refresh & Access Token*
- ~ *Saving Refresh Token in Redis*
- ~ *JWT Logging Out User*
- ~ *Implementing Controllers*

=> TYPESCRIPT :

- ~ *Introduction*
- ~ *Strings, Number & Booleans*
- ~ *Objects, Arrays & Enums*
- ~ *Unions, Literals & Alias*
- ~ *Functions*
- ~ *Configurations*
- ~ *Express App*

=> Swagger :

- ~ *Introduction*
- ~ *Setting up Swagger in Express*
- ~ *Get the Data*

=> React :

- ~ *Introduction*
- ~ *Folder Structure*
- ~ *JSX*
- ~ *Expressions and Literals*
- ~ *CSS in React*
- ~ *Nested Components*
- ~ *Greeting App*
- ~ *Props*
- ~ *Conditional Rendering*
- ~ *useState*
- ~ *Arrays & Objects in useState*
- ~ *Forms*
- ~ *ToDo app with useState*
- ~ *useEffect*

- ~ *useRef*
- ~ *React Router Dom*
- ~ *Context*
- ~ *fetch API*
- ~ *Axios*
- ~ *React-Hooks-Forms*
- ~ *Memo*
- ~ *Callback*
- ~ *Sockets*
- ~ *Charts with Sockets*
- ~ *Custom Hooks*
- ~ *React Redux Introduction*
- ~ *Redux*
- ~ *Redux-thunk*
- ~ *Ecommerce with Redux*
- ~ *React Bootstrap Introduction*
- ~ *React Bootstrap*
- ~ *Material-ui Introduction*
- ~ *Material-ui Buttons*
- ~ *Material-ui Slider*
- ~ *Material-ui Typography*
- ~ *Material-ui Forms*
- ~ *Material-ui Grids*
- ~ *Material-ui Cards*

=> GraphQL :

- ~ *Introduction*
- ~ *GraphQL with Node*
- ~ *Apollo Server with GraphQL*
- ~ *Create, Read and Delete in MERNG 1*
- ~ *Create, Read and Delete in MERNG 2*

Apache Atlas

Topic Name : BIG DATA

Sub-topic Name : TECH STACK

Course link : <https://ineuron.ai/course/Apache-Atlas>

Course Description :-

Apache Atlas provides open metadata management and governance capabilities for organizations to build a catalog of their data assets, classify and govern these assets and provide collaboration capabilities around these data assets for data scientists, analysts, and the data governance team.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Introduces Apache Atlas
- => Apache Atlas Installation
- => Walkthrough of Apache Atlas Console
- => Terminologies in Apache Atlas
- => Data Lineage in Apache Atlas
- => Classification in Apache Atlas
- => Basic and Advanced Search
- => Glossary in Apache Atlas
- => REST APIs in Apache Atlas
- => Practical use of REST APIs
- => Apache Atlas Internals
- => Apache Atlas at ING

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Shruti Mantri :

~ Shruti Mantri is a well-known software architect, instructor and mentor in the industry. She has 10+ years of experience in the software industry, and has worked with different organizations like Oracle, Flipkart, Amazon, Myntra and Twitter. She is known for her expertise in the data engineering field, and has a sound knowledge on the latest technologies in this domain. She has helped develop data platform at organizations, and guided several mentees in understanding data engineering and how to get better at it.

Curriculum details :-

=> Introduction :

- ~ Introduction
- ~ Course Objectives

=> Installation :

- ~ Atlas Installation
- ~ Loading Sample Data

=> Terminologies :

- ~ Types and Entities
- ~ Relationships
- ~ Attributes
- ~ System specific types
- ~ Data lineage
- ~ Classification
- ~ Classification propagation

=> Atlas UI :

- ~ *Basic Search in Atlas UI*
- ~ *Advanced search in Atlas UI*
- ~ *Glossary*

=> **REST APIs :**

- ~ *REST APIs in Atlas*
- ~ *Precap to Hands-on*
- ~ *Creating Entity Type Definitions*
- ~ *Creating Relationship Type Definitions*
- ~ *Creating Entities*
- ~ *Creating Relationships*
- ~ *Creating Data Lineage*
- ~ *Creating Classification*

=> **Internals :**

- ~ *Apache Atlas Internals*

=> **Use-cases :**

- ~ *Industry Use-case: Apache Atlas at ING*

Trifacta

Topic Name : DATA ANALYTICS

Sub-topic Name : DASHBOARDING

Course link : <https://ineuron.ai/course/Trifacta>

Course Description :-

In this course, you will learn the fundamentals of data wrangling using the Trifacta tool. Data wrangling helps to improve data usability as it converts raw data into a compatible format for further analytics and machine learning. Accelerate and visualize data transformation to improve the quality of your dataset and build automated pipelines with Trifacta.

Course Features :-

- => Practical Implementation
- => Downloadable resources
- => Class Recordings
- => Quiz Questions
- => Completion Certificate

What you will learn :-

- => Trifacta
- => Data preprocessing
- => Data transformation
- => Recipes
- => Scheduling jobs

Requirements :-

- => Prior Knowledge of basic data analysis
- => System with good internet connection
- => Interest to learn
- => Your dedication

Instructors :-

=> Monal Kumar :

~ Monal Kumar is a data scientist and instructor working at iNeuron having 2+ years of total experience in both service and product-based organisations. He is specialised in Deep Learning, Computer vision and Image processing. Previously, he held positions as a support configurator at Wipro Technologies and as a Deep Learning researcher at Harptec Research. Offering the finest possible services to his clients. In addition to his primary job function, he is recognised for his creativity and ideas that change the nature of the existing problem.

Curriculum details :-

=> Course Introduction :

- ~ Welcome to Trifacta course
- ~ Course pre-requisites
- ~ Who is this course for? Preview
- ~ What is Trifacta? Preview
- ~ What is API?
- ~ Why API is used?
- ~ Advantage of API Preview
- ~ How to get access to course materials?
- ~ What career path you can follow after completion of this course?

=> Trifacta API :

- ~ Trifacta API introduction and syntax
- ~ Flow object model
- ~ Navigation in trifacta
- ~ Practical: Overview of trifacta default flows
- ~ Module summary

=> Wrangling :

- ~ Introduction
- ~ Keywords
- ~ What is data wrangling?
- ~ Sampling
- ~ Connecting to datasource
- ~ Let's start, Wrangling
- ~ Profile and discover
- ~ Standardizing column values
- ~ Format
- ~ Filter
- ~ Replace

- ~ *Count matches*
- ~ *Split*
- ~ *Merge*
- ~ *Extract*
- ~ *Conditions*
- ~ *Functions*
- ~ *Arrays*
- ~ *Objects*
- ~ *Unpivot*
- ~ *Union*
- ~ *Lookup*
- ~ *Join*
- ~ *Pivot*
- ~ *Module summary*

=> Operationalization :

- ~ *Running a job*
- ~ *Reusing Recipes*
- ~ *Scheduling*
- ~ *Module summary*

=> Summary :

- ~ *Course Outro*
- ~ *Future Scope of Trifacta*

Deep Learning for Kids

Topic Name : K12

Sub-topic Name : CLASS10

Course link : <https://ineuron.ai/course/Deep-Learning-for-Kids>

Course Description :-

Learners will master the fundamentals of deep learning as well as how to tackle a challenging real-world problem that is difficult to handle with standard programming in this course. This course will teach you the fundamentals of AI, allowing you to create incredible AI applications. Students will receive hands-on practical experience in designing AI-based projects after successfully completing the course. Learners might begin applying for freelancing employment in order to make a fortune.

Course Features :-

- => Online Instructor-led learning
- => Practical Implementation
- => Integrate academic knowledge with tech
- => Real-time project
- => Live class recording
- => Doubt clearing
- => Assignment in all the module
- => Quiz in every module
- => Career Counselling
- => Completion certificate

What you will learn :-

- => Introduction Artificial Intelligence
- => Introduction to Deep Learning
- => Supervised learning
- => Unsupervised learning
- => Python basics
- => NumPy basics
- => Pandas basics
- => TensorFlow
- => Kera's
- => Artificial neural network
- => Convolution neural network
- => Projects

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Curriculum details :-

- => Course Introduction :
 - ~ Welcome to machine learning course
 - ~ What you will learn from this course
 - ~ Course pre-requisites
 - ~ What is deep learning?
 - ~ Who is this course for?
 - ~ What you will get from this course?
 - ~ How to get access to course materials?
 - ~ What career path you can follow after completion of this course?
- => Introduction to AI :
 - ~ What is Artificial intelligence?
 - ~ History of AI
 - ~ Applications of AI
 - ~ Advantage of AI
 - ~ Practical use of AI
- => Introduction to learning :
 - ~ What do you mean by learning?

- ~ Why deep learning?
- ~ How babies learn: An Analogy
- ~ Different types of learning
- ~ What is Supervised learning?
- ~ Supervised learning example: Importance of Teacher feedback
- ~ What is Unsupervised learning?
- ~ Unsupervised learning example: Categorizing students based on hobbies (Annual Function)
- ~ What is Reinforcement learning?
- ~ How a self-driving car works: An Analogy
- ~ Discussion: Sofia robot
- ~ Uses of Deep learning

=> Assignment1 :

- ~ Give 3 examples of AI used in the education sector.

=> Preparing your system :

- ~ Why python?
- ~ Colab overview

=> Working with important libraries :

- ~ Python basics
- ~ Numpy basics
- ~ Pandas basics
- ~ Tensorflow basics
- ~ Keras basics

=> Assignment2 :

- ~ Create a function to add 2 numbers
- ~ Create a function that will take name and address from user and print the output
- ~ Print multiplication table of 1 to 10 using for loop
- ~ Print multiplication table of 1 to 10 using for loop
- ~ Using TensorFlow add two numbers and print the output
- ~ Using TensorFlow add two multiply to matrices and print the output

=> Neural network basics :

- ~ What is neuron?
- ~ Neural network vs Human brain network
- ~ What is perceptron?
- ~ What is ANN?
- ~ Practical: Perceptron
- ~ Tensorboard overview
- ~ Logging the activity of training using Tensorboard
- ~ Analysis: How to classify orange and apple with features
- ~ Practical: Predicting the price of premium phones for the year 2023 using Neural network
- ~ Explain Logistic Regression
- ~ Practical: Classifying male and female based on height and weight of a person
- ~ What do you mean by Activation function?

=> Assignment3 :

- ~ Create a neural network and predict the price of mobile network recharge for next 1 year

=> Convolution neural networks :

- ~ Introduction
- ~ What are images?
- ~ Image data vs numerical data
- ~ Practical: Deep neural network
- ~ Using Netron to visualize neural network
- ~ What is CNN?
- ~ Why use CNN instead of N-layer neural network?
- ~ Visualizing different layers of CNN using web app: <https://blog.terencebroad.com/archive/convnetvis/vis.html>
- ~ Practical: Basic CNN using keras
- ~ Practical: Create a CNN and identify day, evening and night
- ~ Discussion: Use cases of CNN (Detection, tracking)

=> Assignment4 :

- ~ Create a CNN to classify whether the room is empty or not

=> Projects :

- ~ Classifying apple vs orange
- ~ Fruit classification using CNN

=> Summary :

- ~ Course Outro
- ~ Future Scope of Deep learning

R Programming Projects

Topic Name : PROGRAMMING

Sub-topic Name : R

Course link : <https://ineuron.ai/course/R-Programming-Projects>

Course Description :-

This course will help you gain extensive knowledge by building various projects on real-time datasets. This will not only clear all your concepts but also give you in-depth knowledge and hands-on experience of working with R programming on various industry level projects.

Course Features :-

- => Roadmap
- => Quizzes
- => Complete project implementation
- => Assignments
- => Challenges
- => Downloadable resources

What you will learn :-

- => Architecture design
- => Solution building
- => Building webapps
- => Machine learning uses
- => Working on real time problems
- => Project presentation skills

Requirements :-

- => Prior understanding of R programming.
- => Basic knowledge of HTML and CSS
- => A System with internet connection.
- => Your dedication.

Instructors :-

- => MD Imran :
 - ~ Working as Data Scientist with experience in solving real world business problems across different domains.

Curriculum details :-

- => Webscraping in R :
 - ~ Web scraping introduction part 1 Preview
 - ~ Web scraping load the data part 2 Preview
 - ~ Web scraping part 3
 - ~ Web scraping part 4
 - ~ Web scraping part 5

Class 9th Physics

Topic Name : K12

Sub-topic Name : CLASS9

Course link : <https://ineuron.ai/course/Class-9th-Physics>

Course Description :-

This course will provide a detailed understanding of the practical as well as theoretical approach towards various scientific concepts like Motion, Work, Energy, Laws of Motion, etc. Complete and detailed solutions from NCERT Exercises are provided.

Course Features :-

- => Self Paced Videos
- => Completion Certificate

What you will learn :-

- => Motion
- => Force and Laws of Motion
- => Gravitation
- => Work and energy
- => Sound

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

- => Jawala Prakash :
- ~

Curriculum details :-

=> Motion :

- ~ Lecture 1 : Understanding Motion, Distance and Displacement Preview
- ~ Lecture 2 : Uniform and Non Uniform Motion, Speed, Average Speed Preview
- ~ Lecture 3 : Uniform speed and Uniform Speed Graph Preview
- ~ Lecture 4 : Velocity and Uniform Velocity
- ~ Lecture 5 : Acceleration, Uniform Acceleration, Retardation(Negative Acceleration)
- ~ Lecture 6 : Equation of Uniformly Accelerated Motion, First Equation of Motion, Second Equation of Motion, Third Equation of Motion
- ~ Lecture 7 : Velocity Time Graph
- ~ Lecture 8 : Deriving Equations of Motion by Graphical Method
- ~ Lecture 9 : Distance Time Graph of Uniform and Accelerated Motion
- ~ Lecture 10 : Speed Time Graph, Uniform Acceleration and Retardation, Non Uniform Acceleration and Retardation
- ~ Lecture 11 : Uniform Circular Motion
- ~ Lecture 12 : Numerical Problems

=> Force and Laws of Motion :

- ~ Lecture 1 : Cause of Motion, Force, Effect of Force, Balanced and Unbalanced Force, First Law of Motion.
- ~ Lecture 2 : Momentum, Second Law of Motion, Application of Newton's Second Law of Motion and its application.
- ~ Lecture 3 : Third Law of Motion
- ~ Lecture 4 : Conservation of Momentum
- ~ Lecture 5 : Exercise

=> Work and Energy :

- ~ Lecture 1 : Introduction, Work done by a Constant Force
- ~ Lecture 2 : Work Done by a Force Acting Obliquely
- ~ Lecture 3 : Work done against Gravity
- ~ Lecture 4 : Energy, Kinetic Energy
- ~ Lecture 5 : Potential Energy, Gravitational Potential Energy,
- ~ Lecture 6 : Power, Unit of Power, Commercial Unit of Energy
- ~ Lecture 7 : Law of Conservation of Energy

=> Gravitation :

- ~ Lecture 1 : Course Content & Introduction
- ~ Lecture 2 : Gravitation Introduction
- ~ Lecture 3 : Universal Law Gravitation
- ~ Lecture 4 : How Newton Guess Inverse Square Law
- ~ Lecture 5 : Free Fall
- ~ Lecture 6 : Mass Vs Weight
- ~ Lecture 7 : Thrust & Pressure
- ~ Lecture 8 : Pressure In Fluids
- ~ Lecture 9 : Buoyancy
- ~ Lecture 10 : Why Objects Floats Or Sinks
- ~ Lecture 11 : Archimedes Principle
- ~ Lecture 12 : Relative Density

- ~ Lecture 13 : *Exampler Problems Part 1*
- ~ Lecture 14 : *Exampler Problems Part 2*
- ~ Lecture 15 : *Exampler Problems Part 3*

=> Sound :

- ~ Lecture 1 : *Introduction*
- ~ Lecture 2 : *Sound Propagation*
- ~ Lecture 3 : *Longitudinal Vs Transverse Waves*
- ~ Lecture 4 : *Sound Characteristics*
- ~ Lecture 5 : *Loudness Vs Intensity*
- ~ Lecture 6 : *Speed of Sound in Different Medium*
- ~ Lecture 7 : *Echo Vs Reverberation*
- ~ Lecture 8 : *Range of hearing*
- ~ Lecture 9 : *Application of Ultrasound*
- ~ Lecture 10 : *Sonar*
- ~ Lecture 11 : *Structure of Human Ear*
- ~ Lecture 12 : *Chapter Summary*
- ~ Lecture 13 : *Question Discussion*
- ~ Lecture 14 : *Exampler Problems*

Machine Learning in R

Topic Name : DATA SCIENCE

Sub-topic Name : MACHINE LEARNING

Course link : <https://ineuron.ai/course/Machine-Learning-in-R>

Course Description :-

The Machine Learning with R course has been specifically developed to aid in the development of a solid understanding of the fundamentals of machine learning. You'll learn how to prepare data for modeling, train your models, visualize and evaluate their performance, and fine-tune their parameters for improved results. Learn the abilities you'll need to work as a machine learning scientist.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Rstudio
- => Histograms
- => Scatterplots
- => overlaying plots
- => Simple Linear Regression
- => Multiple Linear Regression
- => Logistic Regression
- => Support Vector Machine
- => Decision Tree Classification

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

- => MD Imran :
 - ~ Working as Data Scientist with experience in solving real world business problems across different domains.

Curriculum details :-

=> Basics of Statistical Computing in R :

- ~ Installing R
- ~ Rstudio
- ~ Packages
- ~ Plot()
- ~ Bar Charts
- ~ Histograms
- ~ Scatterplots
- ~ overlaying plots
- ~ summary()
- ~ describe()
- ~ selecting cases
- ~ data formats part 1
- ~ data formats part 2
- ~ factors
- ~ entering data
- ~ importing data

=> Data Preprocessing in R :

- ~ Getting Started
- ~ Dataset Description
- ~ Importing the Dataset
- ~ Difference between mean and ave
- ~ Taking care of Missing Data part 1

- ~ *Taking care of Missing Data part 2*
- ~ *Encoding Categorical Data*
- ~ *Splitting the dataset into the training set and test set*
- ~ *Feature scaling*

=> Simple Linear Regression :

- ~ *simple Linear Regression Intuition*
- ~ *Simple Linear Regression in R Step 1*
- ~ *Simple Linear Regression in R Step 2*
- ~ *Simple Linear Regression in R Step 3*
- ~ *Simple Linear Regression in R Step 4*

=> Multiple Linear Regression :

- ~ *Multiple Linear Regression in R Step 1*
- ~ *Multiple Linear Regression in R Step 2*
- ~ *Multiple Linear Regression in R Step 3*

=> Logistic Regression :

- ~ *Logistic Regression in R - Step 1*
- ~ *Logistic Regression in R - Step 2*
- ~ *Logistic Regression in R - Step 3*
- ~ *Logistic Regression in R - Step 4*
- ~ *Logistic Regression in R - Step 5*
- ~ *Logistic Regression in R - Step 6*

=> Support Vector Machine :

- ~ *Support Vector Machine Demo*

=> Decision Tree Classification :

- ~ *Decision Tree Classification Demo*

Kotlin

Topic Name : MOBILE DEVELOPEMENT

Sub-topic Name : KOTLIN

Course link : <https://ineuron.ai/course/Kotlin>

Course Description :-

This course will teach you Kotlin programming. Since we start from the beginning, this course is ideal for total beginners. Several code tasks will allow you to put everything you have learned into practise. So, at the end, you'll be able to write your own Kotlin apps. If you're an Android developer, this course will help you learn the basics of the language. You'll be able to develop more powerful Android applications with Kotlin because it allows you to maintain a cleaner and more expressive code base, leverage notions that go beyond even Java 8, and maintain a cleaner and more expressive code base.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Kotlin basics
- => Conditionals in Kotlin
- => Advanced Data types
- => Data structures in Kotlin
- => Object oriented Kotlin
- => Making android apps with Kotlin

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

=> Getting started with Kotlin :

- ~ Course promo
- ~ Introduction to Course
- ~ Kotlin - Face to Face
- ~ Getting the tools to start with kotlin
- ~ Setting up IDE for Kotlin

=> Basics of Kotlin :

- ~ Getting the tools to start with kotlin
- ~ Numbers in Kotlin
- ~ Strings in Kotlin
- ~ Handling nulls in kotlin
- ~ Our very first file in Kotlin

=> Conditionals in Kotlin :

- ~ If else conditionals in Kotlin
- ~ Finding Odd and Even
- ~ Designing a grading system
- ~ Finding biggest of all
- ~ WHEN in kotlin
- ~ Syntactic sugar for if else and when

=> Advance datatypes in Kotlin :

- ~ Basics of Array in Kotlin
- ~ Array list in kotlin

- ~ *For loop basics*
- ~ *While loop in Kotlin*
- ~ *Selecting valid users only with continue*
- ~ *Functions in Kotlin*
- ~ *Integrating Java with Kotlin*
- ~ *Generating Email list with Kotlin*

=> Object oriented Kotlin :

- ~ *Classes and objects*
- ~ *Creating methods in class*
- ~ *Constructor in Kotlin*
- ~ *Default parameters*
- ~ *Inheritance, open and override in Kotlin*
- ~ *Abstract classes in Kotlin*
- ~ *Interfaces in Kotlin*
- ~ *Data class in Kotlin*
- ~ *Reserve airline seats using enums*

=> Making Android Apps with Kotlin :

- ~ *Getters and setter in bank application.mp4*
- ~ *Limiting the access in classes*
- ~ *Our first hello world Toast Application in Android*
- ~ *Setting things for Calculator App in Android*
- ~ *Creating a calculator App- Finish*

Machine Learning

Topic Name : DATA SCIENCE

Sub-topic Name : MACHINE LEARNING

Course link : <https://ineuron.ai/course/Machine-Learning>

Course Description :-

This is Machine Learning masters, where you will learn various things from the beginning like python, API, deployment in AWS, Azure, GCP, Heroku, Database, various modules in statistics, all machine learning algorithms.

Course Features :-

- => Quizzes
- => Assignments
- => Hands-on practical's
- => Downloadable resources
- => Completion certificate

What you will learn :-

- => Master machine learning on python
- => Make robust machine learning models
- => Use machine learning for personal purpose
- => Handle advanced techniques like dimensionality reduction
- => Classify data using K-Means clustering, Support Vector Machines (SVM), KNN, Decision Trees, Naive Bayes, and PCA

Requirements :-

- => Basic knowledge of python programming
- => A system with a stable internet connection
- => Your dedication

Instructors :-

=> Sudhanshu Kumar :

~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

=> Machine Learning Module 1 :

- ~ Introduction machine learning module 1 Preview
- ~ Supervised, unsupervised, semi-supervised, reinforcement
- ~ Train, test, validation split
- ~ Performance
- ~ Overfitting, underfitting
- ~ OLS
- ~ Linear regression
- ~ polynomial regression
- ~ Assumptions R-square adjusted, R-square intro to Scikit-learn, training methodology, hands-on linear regression, ridge regression, logistics regression, precision-recall

=> Machine Learning Module 2 :

- ~ Decision tree, decision tree regressor, cross-validation Preview
- ~ Bias vs variance, ensemble approach, Bagging, boosting
- ~ Random forest, stacking, variable importance
- ~ XGBoost, hands-on XGBoost, gradient boost, ada boost

=> Machine Learning Module 3 :

- ~ K Nearest Neighbour, k-NN regressor, lazy learners, the curse of dimensionality, k-NN issues

=> Machine Learning Module 4 :

- ~ K-means, hierarchical clustering, DBSCAN
- ~ Performance measurement, principal component analysis, dimensionality reduction

=> Machine Learning Module 5 :

- ~ Naive Bayes SVM
- ~ Anomaly detection

=> Time series :

- ~ Arima, Sarima, Auto Arima
- ~ Time series using RNN LSTM, prediction of NIFTY stock price

Informatica Cloud (IICS)

Topic Name : BIG DATA

Sub-topic Name : BIG DATA ON CLOUD

Course link : [https://ineuron.ai/course/Informatica-Cloud-\(IICS\)](https://ineuron.ai/course/Informatica-Cloud-(IICS))

Course Description :-

A platform and data integration tool that uses software as a service is called Informatica Cloud (SaaS). Databases, flat files, file feeds, on-premises, cloud-based apps, and even social networking sites can all be accessed through Informatica Cloud connections. You will learn how to get started with Informatica Cloud through this program.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => What is Cloud Computing
- => What is Cloud Computing
- => Power Center on-premise vs Informatica cloud
- => Power Center on cloud vs Informatica cloud
- => Informatica Cloud Architecture
- => Informatica Cloud Connectivity and Secure Agent
- => Quick Overview of Data Integration Service
- => Quick Overview of Administration Service
- => Quick Overview of Monitor Service
- => set up salesforce connection
- => set up big query connection
- => set up snowflake connection
- => set up Amazon S3 connection
- => Mapping Task Properties in IICS
- => Mapping Task Demo
- => Synchronization Task in IICS

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

- => MD Imran :
 - ~ Working as Data Scientist with experience in solving real world business problems across different domains.

Curriculum details :-

- => Basics :
 - ~ What is Cloud Computing?
 - ~ The Different Types of cloud computing
- => IICS-Informatica Intelligent Clouds :
 - ~ What is Cloud Computing
 - ~ Power Center on-premise vs Informatica cloud
 - ~ Power Center on cloud vs Informatica cloud
 - ~ Advantages of using Informatica cloud
 - ~ Informatica Cloud Architecture
 - ~ Informatica Cloud Connectivity and Secure Agent
 - ~ Informatica Documentation
- => Getting Started with IICS :

- ~ How to Create a Informatica cloud account
- ~ What are the different services available in Informatica cloud
- ~ Quick Overview of Data Integration Service
- ~ Quick Overview of Administration Service
- ~ Quick Overview of Monitor Service
- ~ Steps to download and install secure agent

=> Data Integration Service :

- ~ Folder Creation under Explore Option
- ~ Mapping Designer-Layout
- ~ How to Configure a reusable Flat File Connection
- ~ How to Configure a reusable Relational connection for an on-premise database
- ~ Steps to Create the mapping and execute it
- ~ Copy to and move to options
- ~ How are the setup of the environment work in the cloud
- ~ What are sub-organization and how to link sub-organizations
- ~ Sub organization option

=> Connections :

- ~ set up salesforce connection
- ~ set up big query connection
- ~ set up snowflake connection
- ~ set up Amazon S3 connection

=> Transformations :

- ~ Creating Customer Table in Oracle Database
- ~ Set up Oracle connection
- ~ Create Mapping
- ~ Connect with Target Table
- ~ Expression Transformation
- ~ Overview in Expression Transformation
- ~ Router Transformation
- ~ Filter Transformation
- ~ Aggregator Transformation

=> Tasks :

- ~ Mapping Task Properties in IICS
- ~ Mapping Task Demo
- ~ Synchronization Task in IICS
- ~ Replication Task in IICS part 1
- ~ Replication Task in IICS part 2
- ~ Data Transfer Task in IICS

=> Taskflows :

- ~ Create a Taskflow in IICS
- ~ Tasks inside a Taskflow in IICS PART 1
- ~ Tasks inside a Taskflow in IICS PART 2
- ~ Schedule a Taskflow in IICS
- ~ Unschedule a Taskflow in IICS
- ~ File Listener in IICS
- ~ Start Taskflow from File Listener in IICS
- ~ Start Taskflow from Faulted step in IICS
- ~ Blackout Period in IICS
- ~ Copy,Rename,move,Delete Assets in IICS
- ~ Deploy the assets from one environment to another environment

Full Stack Web Development with Python in Hindi Tech Neuron

Topic Name : DATA SCIENCE

Sub-topic Name : PYTHON

Course link : <https://ineuron.ai/course/Full-Stack-Web-Development-with-Python-in-Hindi-Tech-Neuron>

Course Description :-

Full Stack Python with Django is specially created to fulfil the standards set by the industry. You may learn a lot about Python, the Django REST framework, Django Models, React, and other topics in this lengthy online interactive course. With the Python Django program, you will also gain proficiency with the web framework while working on practical use cases.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate
- => 18 hr live support all seven day
- => Extra doubt clearing as per demand
- => hindi
- => Doubt clearing
- => 300+ practice problems

What you will learn :-

- => Python basic
- => List object basics
- => String objects
- => Tuples
- => Functions
- => Memory management
- => OOps concepts
- => Exception Handling
- => Files
- => DATABASE
- => Web Development using Python on Django
- => React
- => Web API

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Saurabh Shukla :

~ Saurabh Shukla has been educating children with this credo, and he does so for free. MySirG.com, the educator's YouTube channel, features video lessons on programming languages. Saurabh has successfully reached thousands of students around the country by making it his aim to produce subject-related videos on a daily basis.

Curriculum details :-

- => Course introduction :
 - ~ course overview and dashboard description
 - ~ Programming language overview
 - ~ History of Python
 - ~ Version History of Python
 - ~ Installation (tools:vscode, IDLE)
 - ~ Learning Path through Python

=> Python basic :

- ~ *Developing and executing Python program*
- ~ *Python Virtual Machine*
- ~ *Comment, data, variables, types*
- ~ *heap space and namespace*
- ~ *id, keywords, import, module, help*
- ~ *print, input*
- ~ *number system*
- ~ *Conversion functions*
- ~ *Operators - arithmetic, bitwise, comparison and assignment operators, operators precedence and associativity*
- ~ *Decision Control Statements*
- ~ *Iterative control Statemenets - while loop*
- ~ *transefer control statements- break, continue, pass*
- ~ *for loop*
- ~ *range*

=> List object basics :

- ~ *list*
- ~ *list methods*
- ~ *List comprehensions*
- ~ *packing unpacking*
- ~ *built-in methods*

=> String objects :

- ~ *String object basics*
- ~ *String methods*
- ~ *Splitting and joining strings*
- ~ *String format functions*

=> Tuples :

- ~ *tuple basics*
- ~ *tuple methods*
- ~ *list vs tuple*

=> set :

- ~ *set basics*
- ~ *set comprehensions*
- ~ *set methods*

=> dict :

- ~ *dictionary basics*
- ~ *dict methods*
- ~ *dict comprehensions*

=> Functions :

- ~ *Function Basics*
- ~ *Ways to define a function*
- ~ *function returning None*
- ~ *default arguments*
- ~ *positional vs keyword arguments*
- ~ *variable number of arguments*
- ~ *Recursion*
- ~ *Lambda functions*
- ~ *Iterators*
- ~ *Generator functions*
- ~ *Decorators*
- ~ *Map, reduce, filter functions.*

=> Memory management :

- ~ *Multithreading*
- ~ *Multiprocessing*

=> OOps concepts :

- ~ *oops basic concepts.*
- ~ *Main aspects of OOP*
- ~ *Encapsulation and Abstraction*
- ~ *Classes and Objects*
- ~ *init method*
- ~ *Types of variables*
- ~ *Types of functions*
- ~ *Inheritance*
- ~ *Name conflict issues*
- ~ *Polymorphism*
- ~ *Overriding*
- ~ *Operator Overloading*

=> Exception Handling :

- ~ *Introduction to Exceptions*
- ~ *Exceptions handling with try-except*
- ~ *use of else and finally*
- ~ *Defining exception*

=> Files :

- ~ *Working with files*
- ~ *Reading and writing files*
- ~ *Buffered read and write*
- ~ *Other file methods.*
- ~ *Renaming a file*
- ~ *Removing a file*

=> DATABASE :

~ *Postgres Basics*

=> **Project :**

~ *Core Python + DB*

~ *Web Project-1*

~ *Web Project-2*

=> **Web Development using Python on Django :**

~ *Client Server Architecture*

~ *HTML*

~ *CSS*

~ *JS*

~ *Introduction to Django*

~ *Creating first Django Project*

~ *Creating web application*

~ *Defining views in an application*

~ *Multiple views*

~ *Multiple Application*

~ *Application level url configuration*

~ *Template*

~ *Template variables*

~ *Template Tags*

~ *Template Filters*

~ *Custom Template Tags and Filters*

~ *Database Introduction*

~ *SQLite DB*

~ *Models*

~ *makemigrations*

~ *migrate*

~ *Admin app*

~ *CRUD operations*

~ *session tracking*

~ *login functionality*

=> **React :**

~ *React Essentials*

=> **Web API :**

~ *What is web API*

~ *Difference b/w API and web API*

~ *Restful services*

~ *POSTMAN*

ReactJS Crash Course

Topic Name : WEB DEVELOPEMENT

Sub-topic Name : REACT

Course link : <https://ineuron.ai/course/ReactJS-Crash-Course>

Course Description :-

This course will help you to grab the fundamentals of ReactJS.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => React templates
- => React states
- => React hooks
- => React context API
- => Firebase integration
- => Redux Apps

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

=> ReactJS crash course :

~ ReactJS crash course

=> NaN :

- ~ NaN*
- ~ NaN*
- ~ NaN*
- ~ NaN*
- ~ NaN*
- ~ NaN*

Create A Data Pipeline based on Messaging Using PySpark and Airflow

Topic Name : BIG DATA

Sub-topic Name : BIG DATA PROJECTS

Course link : <https://ineuron.ai/course/Create-A-Data-Pipeline-based-on-Messaging-Using-PySpark-and-Airflow>

Course Description :-

In this Project, we will learn how to Build a Big Data pipeline on AWS at scale. You will be using the Covid-19 dataset. This will be streamed in real time from an external API using NiFi. The complex JSON data will be parsed into CSV format using NiFi and the result will be stored in HDFS. Then this data will be sent to Kafka for data processing using PySpark. The processed data will then be consumed from Spark and stored in HDFS. Then a Hive external table is created on top of HDFS. Finally the cleaned, transformed data is stored in the data lake and deployed. Visualization is then done using Tableau and AWS QuickSight.

Course Features :-

- => Do Everything In Industry Grade Lab
- => Learn As Per Your Timeline
- => Hands-On Industry Real-Time Projects.
- => Self Paced Learning
- => Dashboard Access

What you will learn :-

- => Real Time Projects
- => Create A Data Pipeline based on Messaging Using PySpark and Airflow
- => Build End to End Datapipeline
- => How to Extract Streaming Data into NFFI
- => Data Encryption
- => Data processing using pyspark
- => Build Dashboards

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

- => MD Imran :
 - ~ Working as Data Scientist with experience in solving real world business problems across different domains.

Curriculum details :-

- => Welcome to the Course :
 - ~ Course Overview
 - ~ Dashboard Introduction
- => Project :- Create A Data Pipeline based on Messaging Using PySpark and Airflow :
 - ~ Introduction of Instructor
 - ~ Introduction to Data Pipeline
 - ~ What is Data Engineering
 - ~ Project Overview
 - ~ End Notes
 - ~ Problem Description
 - ~ Understand the application scope
 - ~ Tour to existing solution
 - ~ End Notes
 - ~ Data Infrastructure: Components used
 - ~ Nifi
 - ~ Hdfs
 - ~ Kafka
 - ~ Hive
 - ~ Airflow
 - ~ Pyspark
 - ~ Aws services
 - ~ Data Visualization Tools
 - ~ End Notes
 - ~ Solution Description
 - ~ Data Architecture
 - ~ Tour to Architecture diagram

- ~ Cost Involved
- ~ End Notes
- ~ system Requirements
- ~ Create EC2 Instance
- ~ SSH into EC2 Instance
- ~ Environment setup with docker
- ~ Copy Important folder from local to ec2 and give required permissions
- ~ To connect to different services locally after port forwarding
- ~ To get into bash shell of different containers
- ~ Data Extraction with Nifi
- ~ Data encryption parsing
- ~ Data sources hdfs kafka
- ~ streaming data from kafka to pyspark
- ~ pyspark streaming output kafka nifi hdfs
- ~ Move Data HDFS to hive Table
- ~ Dataflow Orchestration with Airflow
- ~ Connecting with Data Visualization Tool
- ~ Building Dashboard and Report
- ~ End Notes
- ~ Conclude the project
- ~ Assignments & External Resources

The Complete Front End Web Developer Bootcamp

Topic Name : WEB DEVELOPEMENT

Sub-topic Name : FULL STACK WEB DEVELOPMENT

Course link : <https://ineuron.ai/course/The-Complete-Front-End-Web-Developer-Bootcamp>

Course Description :-

This course will help you to grab the fundamentals of Front End technologies used in Web Developement and implement them using various projects.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Introduction, getting the dev tools and basics of HTML
- => Div, tables and Forms with Challenge to create FB page
- => HTML 5 semantics and adding audio, video and YouTube to web
- => CSS-Box model, color selection, Google Fonts
- => Web development projects - GYM and Sushi Restro Templates
- => CSS - classes, ID's, parallax and project to edit template
- => CSS - box sizing, gradients and TODO list project
- => Getting started with Bootstrap - Tour and creating landing page
- => Project - Pokemon Corporate site, yahoo selling page and Adm
- => Javascript projects to practice
- => Moving on to learn JQuery - Selectors and event
- => Actions in JQuery - fading, animations and callback function
- => Projects in JQuery and using JS plugins

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

- => Introduction, getting the dev tools and basics of HTML :
 - ~ Course introduction
 - ~ A personal Note
 - ~ Projects that we will build
 - ~ Collecting and installing developers tool
 - ~ Structuring the files and creating first file
 - ~ Text tags
 - ~ List items
 - ~ Ending with Challenge and solution
- => Div, tables and Forms with Challenge to create FB page :
 - ~ Divisions and Spans
 - ~ Images and links
 - ~ Challenge for links on images and solution
 - ~ Tables in HTML
 - ~ More about forms in HTML
 - ~ Challenge to create facebook page and solution
- => HTML 5 semantics and adding audio, video and YouTube to web :
 - ~ Introducing HTML 5

- ~ Comparing HTML 4 semantics with HTML 5
- ~ Adding video 2C audio and youtube videos

=> CSS-Box model, color selection, Google Fonts :

- ~ Introduction to css and where to write it
- ~ Solving the color selection problem
- ~ Comming soon template and backgrounds
- ~ Box model and centering text
- ~ Google fonts and font awesome

=> Web development projects - GYM and Sushi Restro Templates :

- ~ Project - GYM comming soon part 1
- ~ Project - GYM comming soon part 2
- ~ Project - Restro comming soon with video part 1
- ~ Project - Sushi Restro Comming soon part 2

=> CSS - classes, ID's, parallax and project to edit template :

- ~ Styling the links
- ~ Classes and ID in CSS
- ~ Designing a navigation bar from scratch
- ~ Color palletes and canva for design
- ~ Adding parallax part 1
- ~ Adding parallax part 2
- ~ Project - Learn to edit Templates part 1
- ~ Project - Learn to edit templates part 2
- ~ Project - Challenge to edit a Template

=> CSS - box sizing, gradients and TODO list project :

- ~ Gradients in css
- ~ Check through css
- ~ box sizing in css
- ~ Project - Todo list APP part 1
- ~ Project - Todo list APP part 2
- ~ Project - Todo list APP part 3

=> Getting started with Bootstrap - Tour and creating landing page :

- ~ Introduction to Bootstrap
- ~ Creating first Bootstrap file structure
- ~ Overview of bootstrap working
- ~ Understanding the Grid System
- ~ Tour to CSS part of Bootstrap
- ~ Tour to Components part of Bootstrap
- ~ javascript components and Layoutit website builder
- ~ Project - responsive landing Page part 1
- ~ Project - responsive landing Page part 2
- ~ Project - responsive landing Page and media queries part 3
- ~ Project - Adding facebook and twitter logins

=> Project - Pokemon Corporate site, yahoo selling page and Adm :

- ~ Project pokemon Company adding navigations
- ~ Project pokemon - adding slider
- ~ Project pokemon - adding team section
- ~ Project Pokemon - adding content section
- ~ Project Pokemon - footer and animations
- ~ Yahoo Selling page - navbars
- ~ Yahoo Selling page - complete
- ~ project Admin - adding navbar
- ~ project Admin - adding left dashboard
- ~ project Admin - adding top main content
- ~ project Admin - Complete

=> Grabbing the tools to learn and write Javascript :

- ~ important note before we move on to Javascript

=> JavaScript Refresher :

- ~ Welcome to JavaScript Course
- ~ What are JavaScript engines
- ~ What ES version of JavaScript is good for us
- ~ Variable and datatypes in JavaScript
- ~ Our first User Signup
- ~ Operators in JavaScript Calculate discount
- ~ Type and Operator precedence in JavaScript
- ~ What are conditionals in JavaScript
- ~ Logical conditional Login in JavaScript
- ~ Ternary operator in JavaScript
- ~ Switch for role-based access in JavaScript
- ~ Coercion and falsy values in JavaScript
- ~ Basics of functions in JavaScript
- ~ Functions in variable User Role in JavaScript
- ~ Understand the context in JavaScript
- ~ Code hoisting in JavaScript
- ~ Scope chaining in JavaScript
- ~ Light intro to THIS in JavaScript
- ~ Introduction to Array in JavaScript
- ~ Callback and arrow function introduction in array
- ~ Fill and Filter in Array in JavaScript
- ~ Slice and Splice in JavaScript
- ~ Objects in JavaScript
- ~ Methods and objects in JavaScript
- ~ For loop basics in JavaScript
- ~ While and do while loops in JavaScript

- ~ *For Each loop in JavaScript*
- ~ *For in and for of loop in JavaScript*
- ~ *Confusing part of THIS in JavaScript*
- ~ *What is DOM*
- ~ *How to grab web elements in JavaScript*
- ~ *A counter project in JavaScript*
- ~ *Get Computed properties in JavaScript*
- ~ *Event listener in JavaScript*
- ~ *New keyword in JavaScript*
- ~ *What is proto in JavaScript*
- ~ *Better code with object chain in JavaScript*
- ~ *Objects from MDN docs*
- ~ *Self-Executing Anonymous Function and functional programming*
- ~ *Lexical scoping in JavaScript*
- ~ *Closure in JavaScript*
- ~ *Borrow a method using bind*
- ~ *Get to know node Elements in JavaScript*
- ~ *Generating elements and Text node in DOM*
- ~ *Solution of Scope problem in JavaScript*
- ~ *Template literals in JavaScript*
- ~ *Maps in JavaScript*
- ~ *Destructure the data in JavaScript*
- ~ *Spread and REST operators in JavaScript*
- ~ *Classes and module exports in JavaScript*
- ~ *Private props getters and setters in JavaScript*
- ~ *Inheritance in JavaScript*
- ~ *Event loop Will JavaScript wait*
- ~ *Promise async and await in JavaScript*
- ~ *How to Handle API in JavaScript*
- ~ *Get to know game files*
- ~ *Logic of game JavaScript*
- ~ *Fixing the bug in game JavaScript*
- ~ *What is new in JavaScript 2021*
- ~ *Why iife appears in JavaScript interviews*
- ~ *Quirky Behavior of JavaScript*

=> Javascript projects to practice :

- ~ *Project - Random Password Gen*
- ~ *Project - Random Password Gen Styling*
- ~ *Project Ticky Clock styling*
- ~ *Project Ticky Clock Javascript*

=> Moving on to learn JQuery - Selectors and event :

- ~ *Are we on the same page to learn JQuery*
- ~ *Creating Sample exercise files*
- ~ *Your First JQuery code in action*
- ~ *Basics of Selectors in JQuery*
- ~ *Basics of events in JQuery*

=> Actions in JQuery - fading, animations and callback function :

- ~ *Hiding and showing the images*
- ~ *Fading out in jquery*
- ~ *Slides and Animations in jQuery*
- ~ *Callbacks and chaining in jquery*

=> projects in JQuery and using JS plugins :

- ~ *Getting the HTML 2C text and form values*
- ~ *Setting the HTML 2C text and form values*
- ~ *Toggle CSS classes with JQuery*
- ~ *Project - Image Slider part 1*
- ~ *Project - Image Slider part 2*
- ~ *Typeahead and CSS challenge*

=> Farewell and a gift :

- ~ *farewell and final gift*

=> Bonus: TODO project in JS and web hosting details :

- ~ *Bonus - Todo Project and hosting basics*
- ~ *Adding styles to TODO project*
- ~ *javascript for working of todo*
- ~ *Web hosting as quick as possible*

Full Stack Java Developer

Topic Name : PROGRAMMING

Sub-topic Name : JAVA

Course link : <https://ineuron.ai/course/Full-Stack-Java-Developer>

Course Description :-

The Full Stack Java Developer Job Guarantee Program offers a comprehensive set of software development skills. This one-of-a-kind industry curriculum will help you learn the entire Full Stack Java Development process. Create industry-ready projects and be prepared to land opportunities in top organisations.

Course Features :-

- => Full stack Java Developer certification
- => Job guarantee Program
- => Online Instructor-led learning: Live teaching by instructors
- => 250+ hours live interactive classes.
- => Every week doubt clearing session after the live classes.
- => Lifetime Dashboard access
- => Doubt clearing through mail and discussion forum
- => Quiz in every module
- => A live project with real-time implementation
- => Resume building
- => Career guidance
- => Interview Preparation
- => Regular assessment
- => Mock Interview
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certification

What you will learn :-

- => Fundamentals of Programming
- => Core Java (Detailed)
- => JDBC
- => JEE (Servlets, JSP, and Thymleaf)
- => Hibernate and JPA specifications
- => Spring Core
- => Spring Boot
- => Spring JDBC
- => Spring ORM
- => Spring Data JPA
- => Spring AOP
- => Spring MVC
- => Spring REST
- => Microservices and Realtime tools(Maven, Gradle, Log4J, Junit, Splunk, Putty, Jacacco)
- => Docker and Kubernetes
- => Agile and Scrum
- => Git and Github
- => HTML and CSS
- => Javascript

- => React js
- => SQL - Mysql
- => NoSQL - MongoDB

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Navin Reddy :

~ I am Corporate Java trainer. Since past few years successfully trained many professionals at JP Morgan, Accenture, Polaris and L&T infotech. My youtube channel "Telusko" presently has 1.7 million subscribers. Passionate about Java Technology for over a decade and moved on as a corporate trainer. I am certified blockchain developer and Currently, building Applications running on Blockchain (dapps).

=> Hyder Abbas :

~ Corporate Software Development Trainer with a demonstrated track record of success in the IT and Ed-tech industries. I started my career as a software developer and have since taught Java, Python, Javascript to hundreds of IT enthusiasts, including corporate professionals, throughout the years. I have been developing software for over 6 years.

=> Nitin M :

~ I began working for a multinational corporation as a developer, but teaching has always been my passion. I shifted to education technology and have five years of expertise instructing both college freshmen and Corporate Employees. My interests include Java, JEE, and frameworks, and I have developed numerous applications using SpringBoot and microservices. Last but not least, I want to code as well as teach and continue to teach forever.

Curriculum details :-

=> Induction of Course :

~ Introduction to course and Q&A

=> Git and Github :

- ~ Git foundation
- ~ Setting, maintaining and tracking git repos
- ~ Git snapshots
- ~ Git for team management
- ~ Git branches
- ~ Git merging
- ~ Git and Github ecosystem

=> Software Installation :

- ~ Download and Install Java
- ~ Download and Install Eclipse
- ~ Download and Install Visual Studio Code

=> Fundamentals of Java :

- ~ Introduction to Programming
- ~ Basic Understanding of a Computer
- ~ Basic feature of Java
- ~ Main method
- ~ Classes and Objects(Basics)
- ~ Statically typed vs Dynamically typed Programming Language
- ~ Variables and Data type in Java
- ~ Naming Convention
- ~ Identifiers

=> Operators and Loops :

- ~ Operators in Java
- ~ Incrementation and Decrementation
- ~ Conditional statement
- ~ Ternary operator
- ~ Switch case
- ~ Loops intro
- ~ for - while - do while
- ~ More on loops
- ~ Scanner class and User input in Java
- ~ Pattern programs
- ~ Nested loops

=> OOps Fundamentals :

- ~ Object creation
- ~ Instance variable vs Local variables
- ~ Methods with memory maps (JVM data areas)
- ~ Method overloading

=> Mini Project :

- ~ Guesser Game Project

=> Array in Java :

- ~ Why array?
- ~ What is an Array?
- ~ How to create an array
- ~ 1D, 2D, 3D and Regular Array & Jagged Array with memory map
- ~ Buffer overrun and ArrayIndexOutOfBoundsException
- ~ Disadvantages of Array in Java
- ~ Few basic programming questions
- ~ Bubble Sort
- ~ Selection Sort

- ~ Merge Sort
- ~ Linear Search
- ~ Binary Search

=> String in Java :

- ~ String Introduction
- ~ Types of string
- ~ Immutable string
- ~ Ways to compare and memory map String constant pool
- ~ Inbuilt methods in String class
- ~ Concatination
- ~ Few Programming questions discussion
- ~ (Reversing String, Palindrome, Anagram, Pangram)
- ~ Mutable String
- ~ String Buffer vs String Builder
- ~ Inbuilt Methods

=> Static Keyword :

- ~ Static keyword
- ~ Class loading
- ~ Execution of a Java Program
- ~ static variables, static methods, static block
- ~ Differences b/w Non static and static

=> Encapsulation :

- ~ Need of Encapsulation
- ~ What is Encapsulation?
- ~ Private members
- ~ Shadowing problem and this keyword
- ~ Setters & Getters
- ~ Constructor
- ~ this()

=> Inheritance :

- ~ Inheritance introduction
- ~ extends keyword
- ~ Types of Inheritance
- ~ Important key points(5 keypoints)
- ~ Inherited methods, Overridden methods, Specialized methods
- ~ Rules to override method

=> Polymorphism and Abstraction :

- ~ What is polymorphism ?
- ~ How to achieve polymorphism
- ~ Runtime vs Compile time polymorphism
- ~ Abstract keyword and Abstraction
- ~ Abstract class and Abstract method

=> Final keyword in Java :

- ~ final class
- ~ final variable
- ~ final method

=> Interface :

- ~ What is interface
- ~ Need of Interface
- ~ Different use cases of Interface
- ~ Abstract vs interface
- ~ Additional features of Interface

=> Lambda Expression :

- ~ Functional Interface
- ~ What is Lambda Expression
- ~ Different ways to create Lambda Expression
- ~ Lambda Expression excercises

=> Exception Handling :

- ~ What is an Exception?
- ~ How to handle Exception (try catch)
- ~ Multiple catch block
- ~ Handling vs Ducking an Exception
- ~ Hierarchy of an Exception class
- ~ throw & throws keyword and Custom Exception
- ~ try with Resources

=> Core Java Project :

- ~ Assignment with mentor guidance - Food Delivery App

=> Multi-threading :

- ~ What is Thread & Need of multiple Threads
- ~ How to create multiple Threads
- ~ run() method
- ~ Race condition
- ~ Different states of Thread
- ~ Dead lock

=> Collection in Java :

- ~ Why Collection ?
- ~ ArrayList
- ~ LinkedList
- ~ PriorityQueue
- ~ ArrayDeque

- ~ TreeSet
- ~ HashSet
- ~ LinkedHashSet
- ~ Collection Hierarchy
- ~ Map
- ~ Map heirarchy
- ~ Stream API in Java

=> Annotations in Java :

- ~ Enums
- ~ What is Annotation
- ~ In Built Annotation
- ~ Custom Annotation

=> File Handling in Java :

- ~ Input Stream
- ~ Output Stream
- ~ File Operation in Java
- ~ Serialization
- ~ Deserialization

=> SQL - MySQL :

- ~ Basic Concepts of Advantages of DBMS
- ~ Exploring Relational DBMS
- ~ E-R Modeling and Diagram
- ~ Normalization
- ~ Introduction to SQL
- ~ DDL and DML Statements
- ~ Working with Queries (DQL)
- ~ CRUD operations
- ~ Aggregate Functions
- ~ Joins and Set Operations
- ~ Working with Constraints

=> MongoDB :

- ~ What is mongoDB
- ~ How does mongoDB works
- ~ What is mocha and need of mocha in mongodb
- ~ Big umbrella of MongoDB
- ~ How to install mongoDB on MAC
- ~ How to install mongoDB on Windows
- ~ Create and Read operation in MongoDB
- ~ ObjectId and BSON in mongoDB
- ~ CRUD operations in mongoDB
- ~ UpdateOne and DeleteOne in #mongoDB
- ~ UpdateMany and deleteMany in mongoDB
- ~ Database issues with Update in mongodb
- ~ Getting more data in #mongodb
- ~ Understanding objects structure in mongoDB
- ~ What is schema in mongoDB

=> JDBC :

- ~ Steps followed to write JDBC Code
- ~ Usage of Statement Object
- ~ Usage of Prepared Statement
- ~ Types of Driver available
- ~ Application using Statement and PreparedStatetement

=> Project - JDBC :

- ~ CRUD operation applicationin layered approach of Student table using Factory Desgin Pattern

=> HTML and CSS :

- ~ Collecting and installing developers tool
- ~ Structuring the files and creating first file
- ~ Text tags
- ~ List items
- ~ Divisions and Spans
- ~ Images and links
- ~ Challenge for links on images and solution
- ~ Tables in HTML
- ~ More about forms in HTML
- ~ Comparing HTML 4 semantics with HTML 5
- ~ Introduction to css and where to write it
- ~ Solving the color selection problem
- ~ Comming soon template and backgrounds
- ~ Box model and centering text
- ~ Google fonts and font awesome
- ~ Styling the links
- ~ Classes and ID in CSS
- ~ Designing a navigation bar from scratch
- ~ Color palletes and canva for design
- ~ Gradients in css
- ~ Check through css
- ~ box sizing in css

=> JavaScript :

- ~ What are JavaScript engines
- ~ What ES version of JavaScript is good for us
- ~ Variable and datatypes in JavaScript
- ~ Operators in JavaScript
- ~ What are conditionals in JavaScript

- ~ Logical conditional Login in JavaScript
- ~ Ternary operator in JavaScript
- ~ Switch for role-based access in JavaScript
- ~ Basics of functions in JavaScript
- ~ Functions in variable User Role in JavaScript
- ~ Understand the context in JavaScript
- ~ Code hoisting in JavaScript
- ~ Scope chaining in JavaScript
- ~ Light intro to THIS in JavaScript
- ~ Maps in JavaScript
- ~ Classes and module exports in JavaScript
- ~ Private props getters and setters in JavaScript
- ~ Inheritance in JavaScript
- ~ Event loop Will JavaScript wait
- ~ Promise async and await in JavaScript

=> React js :

- ~ What is react and myths
- ~ Tools that we need
- ~ Introduction of Virtual DOM.
- ~ Difference between JS and JSX.
- ~ React Components overview
- ~ Containers and components
- ~ Child Components
- ~ Namespaced components
- ~ JavaScript expressions available in JSX
- ~ Node setup
- ~ How to use NPM?
- ~ How to create package.json and purpose of it
- ~ Best IDE for React JS and How to write optimized code in React JS?
- ~ React JS browser plugins overview.
- ~ Create a React component with JSX template.
- ~ How to create Nested Components?
- ~ What is React JS render?
- ~ React Props overview.
- ~ Introduction of Props validation with data types.
- ~ Flow of States, Initialize states and update states.
- ~ Lists of Form components.
- ~ Setup Controlled and Uncontrolled form components.
- ~ Control Input elements.
- ~ How to set default values on all formats of Input elements.

React JS Form validations.

- ~ How to write Styles?
- ~ Initial Render
- ~ Props Change
- ~ Stage Change
- ~ Component willMount
- ~ Component didMount
- ~ Component Unmount
- ~ Overview of a single-page application.
- ~ How is React Router configured?
- ~ Background of Router
- ~ How Should Conditional Statements Be Handled in JSX?
- ~ onBlur, onKeyUp, onChange and other useful primary events in React JS.
- ~ How to Sharing events between the components?
- ~ Introduction to styled components
- ~ Styling the application using styled component
- ~ How to Load the router library?
- ~ Configure the React Router?
- ~ How to Pass and receive parameters?
- ~ Understanding Hooks
- ~ The useState hook
- ~ Side effects using the useEffect hook
- ~ The useContext hook
- ~ The useReducer hook
- ~ Writing your own hook
- ~ The React ecosystem

=> Servlet :

- ~ Types of application
- ~ Client Server Architecture
- ~ Different types of Server a. web server b. application server
- ~ Need of Servlet and Different ways of Creating a Servlet
- ~ Configuring Servlet in
- ~ XML and Annotation support
- ~ Difference b/w ServletConfig vs ServletContext object
- ~ HttpServletRequest, HttpServletResponse, RequestDispatching
- ~ SessionTracking Mechanism
- ~ HttpSessionTracking
- ~ Cookie
- ~ URL ReWriting
- ~ Hidden form Field
- ~ Filters,Listeners and One CRUD app using MVC Design pattern
- ~ Need of JSP, Usage of JSP, Implicit Objects
- ~ Type of Directives
- ~ Expression Language, JSTL Tags
- ~ MVC CRUD APP using Servlet, JSP

=> Project - JEE :

~ Building CustomerRelationship manager System using JDBC,Servlets and JSP and JSTL

=> Introduction to ORM(Hibernate and JPA Specifications) :

- ~ Drawbacks of JDBC
- ~ Hiberante
- ~ Advantages of Hibernate compared to JDBC
- ~ Introduction.
- ~ ORM (Object Relational Mapping)
- ~ Configuration xml file and Mapping xml file along with dtlds.
- ~ Hibernate architecture
- ~ Installation and Directory Structure
- ~ Hibernate Data Types.
- ~ First Application using Hibernate.
- ~ Hibernate API
- ~ CRUD operations
- ~ Primary key Generators
- ~ Hibernate Query Language (HQL)
- ~ Native SQL
- ~ Criteria API
- ~ Inheritance in Hibernate
- ~ Relations
- ~ (one to one, one to many, many to one, many to many)
- ~ Caching
- ~ Connecting with Multiple Databases
- ~ Integrating Hibernate with Servlets,JSP and with Spring
- ~ Hibernate Annotations
- ~ Performing BLOB/CLOB operation, Insertion of Date and Time to Database
- ~ Performing Object versioning TimeStamping and life cycle events of hibernate
- ~ ConnectionPooling in hibernate

=> Project - Hibernate :

~ Building CustomerRelationship manager System using ORM,Servlets and JSP and JSTL

=> SPRING BOOT :

- ~ What is Spring Framework
- ~ What is Spring Boot
- ~ Differences between Spring & Spring Boot
- ~ IOC container
- ~ Dependency Injection a) Setter Injection b) Constructor Injection c) Field Injection
- ~ Stereotype Annotations a) @Component b) @Service c) @Repository d) @Controller e) @Indexed
- ~ Spring Boot Overview
- ~ Pros & Cons of Spring Boot
- ~ Approaches to create Spring Boot Application
- ~ Spring Initializer (start.spring.io)
- ~ Spring Starter Wizard in STS IDE
- ~ Introduction to Spring Boot Starters
- ~ Spring Boot Parent Starter
- ~ Spring-boot-starter
- ~ Spring-boot-starter-web
- ~ Spring-boot-starter-webflux
- ~ Spring-boot-starter-data-jpa
- ~ Spring-boot-devtools
- ~ Spring-boot-starter-mail
- ~ Spring-boot-actuator
- ~ Spring-boot-starter-test etc.
- ~ What is Start Class in Spring Boot
- ~ @SpringBootApplication annotation internals
- ~ SpringApplication.run(..) method internals
- ~ Spring Boot Application Boot strapping
- ~ AutoConfiguration in Spring Boot

=> SPRING DATA JPA :

- ~ What is Persistence Layer
- ~ Best practises to follow in persistence layer
- ~ ORM Basics
- ~ Spring Data JPA Introduction
- ~ Differences between Spring ORM and Spring Data
- ~ CrudRepository introduction
- ~ CrudRepository methods for DB operations
- ~ Custom findByXXX method syntax
- ~ Custom Queries Execution in Data JPA
- ~ JpaRepository introduction
- ~ JpaRepository methods for DB operations
- ~ Pagination Using Data JPA methods
- ~ Sorting Using Data JPA Methods
- ~ Query By Example Executor
- ~ Generators
- ~ Custom Generators in Spring Data
- ~ Embedded Database Introduction
- ~ Embedded Database vs External Database
- ~ Application Development using Embedded Database (H2)
- ~ Application Development Using MYSQL Database
- ~ Application Development Using PostGreSQL Database
- ~ Application Development Using MongoDB
- ~ profiles in springboot

=> SPRING WEB MVC :

- ~ Spring Web MVC Introduction
- ~ Spring Web MVC Advantages
- ~ Spring MVC Architecture

- ~ Introduction to Front Controller
- ~ Controllers
- ~ Handler Mappers
- ~ View Resolvers
- ~ Web Application development using Spring Boot
- ~ Embedded HTTP Servers Introduction
- ~ a) Embedded Tomcat Server b) Embedded Jetty Server c) Embedded Undertow Server
- ~ Making Jetty as Default server
- ~ Web Application Deployment in External Server
- ~ Sending Data From UI to Controller
- ~ a) Query Param b) Path Param
- ~ Sending Data From Controller to UI a) Model b) ModelAndView
- ~ @RequestBody annotation 38) @ResponseBody annotation
- ~ Introduction to Spring MVC Form Tag library
- ~ Form Based application development using Spring Boot
- ~ Thymeleaf Introduction
- ~ Web Application with Thymeleaf
- ~ Sending Email using Spring Boot
- ~ Exception Handling in Spring Boot Web Application
- ~ Spring Boot Actuators
- ~ a) Health b) Info c) Heapdump d) Threaddump
- ~ e) Beans f) Httptrace g) Mappings h) Shutdown etc
- ~ Unit Testing for Spring Boot Application using JUnit with Mocking
- ~ Code Coverage using Jacoco

=> SPRING REST :

- ~ Distributed Applications
- ~ Distributed Technologies
- ~ SOAP vs REST
- ~ RESTful Services Introduction
- ~ REST principles
- ~ XML
- ~ One Time operations
- ~ Run Time Operations a) Marshalling b) Un Marshalling
- ~ JAX-B Introduction JAX-B Architecture
- ~ Applications development with JAX-B
- ~ JSON Introduction
- ~ XML vs JSON
- ~ JACKSON API
- ~ Converting Java object to JSON and vice versa using Jackson API
- ~ GSON API
- ~ Converting Java Object to JSON and Vice Versa using GSON API
- ~ HTTP Protocol Details
- ~ HTTP Methods a) GET b) POST c) PUT d) DELETE
- ~ HTTP Status Codes
- ~ @RestController
- ~ @RequestBody
- ~ @ResponseBody
- ~ @RequestParam
- ~ @PathVariable
- ~ Media Types
- ~ Consumes
- ~ Produces
- ~ Accept Header
- ~ Content-Type head
- ~ REST API Development using Spring Boot
- ~ POSTMAN
- ~ SWAGGER & SWAGGER UI
- ~ Exception Handling in REST API
- ~ REST Security
- ~ a) HTTP Basic Auth
- ~ b) JWT
- ~ c) OAuth2.0
- ~ Mono Objects
- ~ Flux Objects
- ~ REST Client Introduction
- ~ RestTemplate
- ~ WebClient
- ~ RestTemplate vs WebClient
- ~ Reactive Programming
- ~ Synchronous vs Asynchronous Calls
- ~ Apache Kafka Integration with Spring Boot
- ~ Redis Cache Integration with Spring Boot

=> Spring Boot Projects :

- ~ Building Student management System using SpringBoot
- ~ Building CustomerRelationship manager System using SpringMVC and Thymeleaf
- ~ Working with TicketManagement application using Spring datajpa and Spring ReSt with swagger integration

=> Docker :

- ~ Docker & its architecture
- ~ Docker as a service
- ~ Docker CLI
- ~ Docker Volumes
- ~ Dockerizing a web application

=> MICROSERVICES :

- ~ Monolith Architecture case study
- ~ Monolith Application Deployment Process
- ~ Load balancer (Cluster) case study

- ~ Load Balancing Algorithms
- ~ a) Round Robin
- ~ b) IP Hashing
- ~ c) Sticky Session
- ~ Monolith Architecture Drawbacks
- ~ Micro services Introduction
- ~ Micro Services Advantages
- ~ Micro Services Dis-Advantages
- ~ Micro Services case study
- ~ Identifying Micro services boundaries
- ~ Micro services Architecture
- ~ Micro services Development

=> Agile and Scrum :

- ~ What is Agile?
- ~ What is Scrum?
- ~ Benefits of Agile
- ~ Scrum Artifacts

=> Final Project 1 :

- ~ Building StockMarket API integration with Eureka Client and hosting in PCF

=> Final Project 2 :

- ~ Building BookStock AP integration with MongoDB and making it as Eureka Client with swagger integration

=> Final Project 3 :

- ~ Capstone project of Insurance application which holds microservices and React integration

Python advance with projects

Topic Name : DATA SCIENCE

Sub-topic Name : PYTHON PROJECT

Course link : <https://ineuron.ai/course/Python-advance-with-projects>

Course Description :-

Throughout this course, you will learn everything you need to know about Python, from the basics to advanced topics. Python applications like download manager will be developed using advanced principles to help you become a professional programmer capable of landing well-paying employment.

Course Features :-

- => Challenges
- => Quizzes
- => Assignments
- => Downloadable resources
- => Completion certificate

What you will learn :-

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Requirements :-

- => Basic knowledge of Python programming
- => A system with stable internet connection
- => Your dedication

Instructors :-

=> Sudhanshu Kumar :

~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

=> Introduction :

- ~ Programming language overview Preview
- ~ Installation (tools: sublime, vscode, pycharm, anaconda, atom, jupyter notebook, kite) Preview
- ~ Virtual environment
- ~ Why python

=> Python Basic :

- ~ Introduction of python and comparison with other programming language
- ~ Installation of anaconda distribution and other python ide
- ~ Python objects, number & Booleans, strings.
- ~ Container objects, mutability of objects
- ~ Operators - arithmetic, bitwise, comparison and assignment operators, operators precedence and associativity
- ~ Conditions (if else, if-elif-else), loops (while, for)
- ~ Break and continue statement and range function

=> String Objects :

- ~ Basic data structure in python
- ~ String object basics
- ~ String inbuilt methods
- ~ Splitting and joining strings
- ~ String format functions

=> List Object Basics :

- ~ List methods
- ~ List as stack and queues
- ~ List comprehensions

=> Tuples, Set, Dictionaries & Its Function :

- ~ Dictionary object methods
- ~ Dictionary comprehensions
- ~ Dictionary view objects
- ~ Functions basics, parameter passing, iterators.
- ~ Generator functions
- ~ Lambda functions
- ~ Map, reduce, filter functions.

Azure Machine Learning DP 100

Topic Name : DATA SCIENCE

Sub-topic Name : MACHINE LEARNING

Course link : <https://ineuron.ai/course/Azure-Machine-Learning-DP-100>

Course Description :-

This course is designed for data scientists who want to develop and manage machine learning solutions on the cloud and who already have some familiarity with Python and machine learning frameworks like Scikit-Learn, PyTorch, and Tensorflow. In this course, students will learn how to build comprehensive Microsoft Azure solutions.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Create the AzureML Workspace
- => Create a Dataset
- => Explore the AzureML Dataset
- => Understanding the AzureML Compute Resources
- => Deploy a real-time endpoint using Designer
- => Consume Model
- => Access Workspace, Datastore and Datasets using SDK
- => Pandas Dataframe and AzureML Dataset conversions
- => Upload local data to storage account via datastore
- => Simple Python Script in Designer
- => Execute Python Script using Zip Bundle

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

- => MD Imran :
 - ~ Working as Data Scientist with experience in solving real world business problems across different domains.

Curriculum details :-

- => Set up Azure Machine Learning Workspace :
 - ~ Understand the AzureMLService Architecture
 - ~ Create the AzureML Workspace
 - ~ View and Manage Workspace Settings
 - ~ Overview of New AzureML Studio
 - ~ What is AzureML Datastore and Dataset
 - ~ Create and Register a Datastore
 - ~ Create a Dataset
 - ~ Explore the AzureML Dataset
 - ~ Understanding the AzureML Compute Resources
 - ~ Create a Compute Cluster and Compute Instance
- => Model Training and Run Experiment :
 - ~ What is an AzureML Pipeline
 - ~ Create a pipeline using AzureML Designer
 - ~ Submit the Designer Pipeline run
- => Deploy and Consume the Models :
 - ~ Create an Inference Pipeline
 - ~ Deploy a real-time endpoint using Designer
 - ~ Consume Model
 - ~ Create a batch inference pipeline using Designer

- ~ *Run a Batch Inference Pipeline from Designer*
- ~ *Result*

=> **Data Processing using AzureML Designer :**

- ~ *Get Data to the workspace*
- ~ *Import Data to the workspace from external sources*
- ~ *Edit Metadata - Column Names*
- ~ *Understanding the Run*
- ~ *Edit Metadata - Data Type*
- ~ *Export Data to the Blob Storage*
- ~ *Add Columns to the Dataset*
- ~ *Add Rows to the Dataset*
- ~ *Normalization of Data Part 1*
- ~ *Normalization of Data Part 2*
- ~ *Clean Missing Data*
- ~ *Partition and Sample Data Part 1*
- ~ *Partition and Sample Data Part 2*

=> **Azure Machine Learning with Azure :**

- ~ *Introduction to AzureML SDK*

=> **Set Up Azure Machine Learning Workspace using sdk :**

- ~ *Create AzureML Workspace using SDK part 1*
- ~ *Verify the Workspace and Write the Workspace Config File*
- ~ *Create and Register a Datastore using AzureML SDK*
- ~ *Create and Register a Dataset using SDK part 1*
- ~ *Create and Register a Dataset using SDK part 2*
- ~ *Access Workspace, Datastore and Datasets using SDK*
- ~ *Pandas Dataframe and AzureML Dataset conversions*
- ~ *Upload local data to storage account via datastore*

=> **Run Experiments and Train Models :**

- ~ *Set up*
- ~ *Overview of Architecture*
- ~ *Create Sample Experiment part 1*
- ~ *Create Sample Experiment part 2*
- ~ *Run Sample Experiment*
- ~ *Azureml Environment part 1*
- ~ *Azureml Environment part 2*
- ~ *Azureml Environment part 3*
- ~ *Azureml Environment part 4*
- ~ *Azureml Environment part 5*
- ~ *Train and Run a Model Script in AzureML Part 1*
- ~ *Train and Run a Model Script in AzureML Part 2*
- ~ *Train and Run a Model Script in AzureML Part 3*
- ~ *Provisioning Compute Cluster Using SDK Part 1*
- ~ *Provisioning Compute Cluster Using SDK Part 2*
- ~ *Automate Model Training using AzureML SDK*
- ~ *Define Pipeline Steps*
- ~ *Define Training Steps*
- ~ *Built the pipeline*
- ~ *Command Line Arguments*
- ~ *Data preparation script*
- ~ *Training script*
- ~ *Run the pipeline part 1*
- ~ *Run the pipeline part 2*
- ~ *Run the pipeline part 3*

=> **Using Python Scripts in AzureML :**

- ~ *Simple Python Script in Designer*
- ~ *Execute Python Script using Zip Bundle*
- ~ *Execute Python Script using Zip Bundle Demo*

Complete VueJS Development

Topic Name : WEB DEVELOPEMENT

Sub-topic Name : VUE JS

Course link : <https://ineuron.ai/course/Complete-VueJS-Development>

Course Description :-

VueJS is the shooting star in the world of JavaScript frameworks, regardless of whatever measure you choose (Google Trends, Tweets, etc.). This course covers the most recent version of Vue in great depth and from the ground up. In this course, we will go over all of the fundamentals of VueJs. Vue JS and other frontend frameworks are incredibly popular because they provide the same dynamic, fantastic user experience that we have come to expect from mobile applications - but now in the browsers as well. And it is no surprise that positions requiring frontend framework expertise such as VueJS are among the highest-paying in the business!

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => VueJs project structure
- => VueJs data types and methods
- => Passing data to props
- => Adding editable forms in todo
- => Passing methods in vueJs

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

=> Getting Started With VueJS :

- ~ Introduction to Vue JS
- ~ Important note on Vue docs
- ~ Vue web page via CDN
- ~ Injecting Vue on web page
- ~ Another method to add app

=> Basics of VueJS :

- ~ A nice card in Vue
- ~ Directives in VueJS
- ~ Handling Arrays in VueJS
- ~ loops and assignment in VueJS
- ~ Handling Booleans and conditionals in VueJS
- ~ Login and logout in VueJS
- ~ Why people avoid v-show

=> 2 way binding in VueJS :

- ~ Getting the values from html in VUEJS

=> 3 way binding in VueJS :

- ~ Model the data in VueJS

=> 4 way binding in VueJS :

- ~ Computed and methods in VueJS

=> 5 way binding in VueJS :

- ~ Handling computed in VueJS

=> 6 way binding in VueJS :

- ~ Assignment time in VueJS

=> 7 way binding in VueJS :

- ~ Life Cycle hooks in VueJS

=> Moving to Vue cli :

- ~ Vue cli and GUI

- ~ Redo the project in VueJS

- ~ Setup you HTML for counter app

- ~ Counter app and assignment

=> Conditionals in VueJS :

- ~ bulding logics for Rating app

- ~ Finishing up rating app in VueJS

- ~ Word generator project in VueJS

- ~ Word generator methods

- ~ A nasty bug to find in VueJS

=> Components and third part

libraries :

- ~ Adding third party libraries

- ~ Your first component

- ~ Watcher in VueJS

- ~ craft a winning login in tictacToe VueJS

- ~ Making our game functional in VueJS

- ~ Reload the game in Vue JS

=> Handling local storage in

VueJS :

- ~ Building a local storage app in VueJS

- ~ Bring in Moment and UUID

- ~ A reuseable header in Vue JS

- ~ Input form component in VueJS

- ~ Movie card component in VueJS

- ~ Handling local storage in VueJS

- ~ Bring all components together and bug assignment VueJS

- ~ LifeCycle events in action VueJS

=> Handling API in VueJS :

- ~ Introducing the API in VueJS

- ~ Setting up API project in VueJS

- ~ Axios to fire request on web VueJS

- ~ Handling response with check Vuejs

- ~ Testing the response VueJS

- ~ Summing up user card Vue JS

=> Routing and state management :

- ~ A new router app in vuejs

- ~ Basics of routing middleware

- ~ router link in vue js

- ~ All about routing in Vuejs

- ~ Getting started with Github app in vuejs

- ~ Firebase config settings in vue

- ~ Creating lots of files for vue git project

- ~ Store in vuejs

- ~ Signup gitapp in vuejs

- ~ map getters in vuex

- ~ map actions in vuex

- ~ handling user card in vuex

- ~ preparing repo table in vuex

- ~ handling home component with store in vuex

- ~ Auth Guard in vue router

- ~ debugging session

Complete ReactJs Developer Bootcamp

Topic Name : WEB DEVELOPEMENT

Sub-topic Name : REACT

Course link : <https://ineuron.ai/course/Complete-ReactJs-Developer-Bootcamp>

Course Description :-

This course will teach you React.js in a hands-on manner, utilising all of the most up-to-date patterns and best practises. To become a React.js developer, you will master all of the foundations as well as advanced ideas and associated subjects. This course will provide you with a wealth of essential material and expertise, whether you are new to React or have some basic React experience.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => React templates
- => React states
- => React hooks
- => React context API
- => Firebase integration
- => Redux Apps

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

- => Introduction :
 - ~ Into to REACTJS course
- => After launch updates :
 - ~ React router v6
- => Getting started with ReactJS :
 - ~ How to use exercise files
 - ~ What is react and myths
 - ~ Tools that we need
- => Going All classic :
 - ~ Section 2 introduction
 - ~ Finishing the hello world task
 - ~ Delete and recreate everything
 - ~ Adding CSS to our Hello World
 - ~ Everything in its own file
 - ~ Reusable components
- => Create a react template :
 - ~ Section 3 introduction
 - ~ Understand the existing template
 - ~ Move navbar and understand the errors
 - ~ Convert the HTML template into React App
 - ~ Reusable Card and Assignment
- => Getting friendly with states :
 - ~ Section 4 introduction
 - ~ What are props and states

- ~ Preparing the state based applications
- ~ Complete counter application
- ~ Assignment for counter app

=> Building a Tic Tac Toe :

- ~ section 5 Introduction
- ~ Your need to study first
- ~ Preparing the Tic Tac Toe
- ~ Sending icons from components
- ~ Setup layout for tictactoe
- ~ Game is almost working
- ~ Finishing tictactoe and assignment

=> Learn React Context API with projects :

- ~ Section 6 Introduction
- ~ The problem that contextAPI solves
- ~ Detail on Context and Provider
- ~ Detail on Consumer in contextAPI
- ~ Understand the working of dark and light mode
- ~ Creating a theme Toggler with Context API
- ~ Finishing the theme switcher app

=> App with Context API with reducers and actions :

- ~ Section 7 introduction
- ~ What are we building here
- ~ Create brain of the application
- ~ useReducer for our app
- ~ Add an input form
- ~ Sending a dispatch
- ~ Display the context data and dispatch

=> Local storage and useEffect hooks :

- ~ Section 8 introduction
- ~ Introducing the Effect hook
- ~ A form to submit the data
- ~ Looping through all the values
- ~ Hooks and local storage in action

=> Learn to handle API :

- ~ Section 9 introduction
- ~ Learn to read docs for API
- ~ lets read Axios docs
- ~ Drill down the API
- ~ Extracting information from API

=> Designing a shopping cart API :

- ~ Section 10 introduction
- ~ A walk through Pexels and JSON
- ~ Add item to the cart
- ~ Buy item and remove item
- ~ Fetching photos from API
- ~ Store everything in state
- ~ Card for every product
- ~ Create cart section
- ~ Bring the shop together
- ~ Removing the duplicate

=> Firebase with Github App :

- ~ Section 11 introduction
- ~ What we are about to build
- ~ React Router crash course
- ~ Your tour to configure firebase
- ~ Read firebase docs with me
- ~ Creating components for firebase app
- ~ Bring in the react router
- ~ Headers and Footers
- ~ Conditional rendering in Navbar
- ~ Adding firebase configuration
- ~ User Signup in firebase
- ~ Logout and signin user
- ~ User card component
- ~ Repo component
- ~ Home page and finish the app

=> Firebase real time database :

- ~ Section 12 introduction
- ~ A challenge application
- ~ Firebase real time database
- ~ Setting context and actions
- ~ Creating reducers for contact
- ~ Header and Footer tasks
- ~ How to upload image in firebase storage
- ~ Add and update contact in firebase
- ~ Add or update finder
- ~ Update star and delete contact
- ~ Use dispatch and FIXME
- ~ Get all data from firebase
- ~ Loop through firebase object
- ~ Firebase finale and assignment

=> Bonus-Redux App :

- ~ 3 Principles of redux
- ~ Bring in the central state
- ~ Actions make redux simpler
- ~ Reducer - brain part of app
- ~ Component dispatching the info
- ~ 2 most important method for Redux
- ~ Provider to give access of store
- ~ Finally creating that store

=> More bonus stuff -Extra production tips :

- ~ Axios optimise API calls

=> Bonus updates :

- ~ React 18 updates

Snowflake Beginners

Topic Name : BIG DATA

Sub-topic Name : TECH STACK

Course link : <https://ineuron.ai/course/Snowflake-Beginners>

Course Description :-

Cloud Data Warehouse is the next big thing. Learn What is Snowflake Cloud Data Warehouse and its architecture. Build a highly scalable, high performance next-gen modern data warehouse for your company. The course is designed in beginner-friendly, helping you to understand the basics of cloud, SAAS and it all works together in the background.

Course Features :-

- => Practical Implementation
- => Downloadable resources
- => Class Recordings
- => Quiz Questions
- => Completion Certificate

What you will learn :-

- => Snowflake Architecture
- => Working with Snowflake UI
- => Features of Snowflake
- => Setup Connectors

Requirements :-

- => Prior Knowledge of Databases Language
- => Interest to learn
- => Your dedication

Instructors :-

=> MD Imran :

~ Working as Data Scientist with experience in solving real world business problems across different domains.

Curriculum details :-

=> Course Overview :

~ Course overview Preview

=> Master the basics :

- ~ What is data warehousing?
- ~ Why Snowflake?
- ~ What is Snowflake? Preview
- ~ Snowflake working architecture
- ~ Snowflake signup

=> Introduction to snowflake :

- ~ Key Concepts & Architecture
- ~ Supported Cloud Platforms
- ~ Supported Cloud Regions
- ~ Snowflake Classic Legacy WebUI
- ~ Snowflake Modern Web UI
- ~ Snowflake Unique Features

=> Snowflake Database SchemaTable & Container Hierarchy :

- ~ Create database and schema under snowflake account
- ~ Create a table with different data type
- ~ Create a table with text field
- ~ Create a table with date and timestamp field
- ~ Create a table with Upper, Lower & Mixed Case
- ~ Constraints in Snowflake

=> Partner connect :

- ~ Setup connectors part 1 Preview
- ~ Setup connectors part 2
- ~ Setup connectors part 3

Scratch Programming for kids

Topic Name : K12

Sub-topic Name : CLASS8

Course link : <https://ineuron.ai/course/Scratch-Programming-for-kids>

Course Description :-

This course will provide learners with a strong knowledge of basic programming concepts without writing code. Scratch is a computer programming language that allows creating interactive stories, games, and animations and sharing them online straight forward and exciting. Students will receive hands-on practical experience in basic game creation after successfully completing the course.

Course Features :-

- => Online Instructor-led learning
- => Practical Implementation
- => Integrate academic knowledge with the tech
- => Real-time Project
- => Live Class Recording
- => Doubt Clearing
- => Assignment in all the Module
- => Quiz in every Module
- => Career Counselling
- => Completion Certificate

What you will learn :-

- => Introduction to programming
- => Working with sprites
- => Scratch components
- => Scratch Motion block
- => Scratch Looks block
- => Scratch Sound block
- => Scratch Control block
- => Scratch Sensing block
- => Scratch Operators
- => Scratch Variables

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Curriculum details :-

- => Introduction to Scratch Programming :
 - ~ Course Introduction
 - ~ Who is this course for?
 - ~ Course Overview
 - ~ Course Outcome
 - ~ Why start with Scratch programming?
 - ~ Sprites vs Images
 - ~ Block Categories
- => Scratch Components :
 - ~ Variables
 - ~ Datatypes
 - ~ Keywords
 - ~ Conditional Statements
 - ~ Control Flow
- => Scratch Motion Block :
 - ~ Move tag
 - ~ Turn tag
 - ~ Go to tag
 - ~ Glide tag
- => Assignment 1 :
 - ~ Set x and y to (10, 100) and glide 5 seconds to random position.

=> Scratch Looks Block :

- ~ Say tag
- ~ Think tag
- ~ Various costume tags
- ~ Backdrop tag

=> Assignment 2 :

- ~ Make a new costume for sprite and make it change using next costume block

=> Scratch Sound Block :

- ~ Play sound
- ~ Start sound
- ~ Stop sound
- ~ Change pitch

=> Assignment 3 :

- ~ Make sprite walk 10 steps in the right direction and make a pop sound at the end.

=> Scratch Events Block :

- ~ Backdrop events
- ~ Broadcast events
- ~ Loudness events

=> Assignment 4 :

- ~ Use 'when this sprite clicked block and say hello after 1 second

=> Scratch Control Block :

- ~ Wait control tag
- ~ Repeat control tag
- ~ Forever control tag

=> Assignment 5 :

- ~ Make a sprite rotate forever using control flow

=> Scratch Sensing Block :

- ~ Touching sensing tag
- ~ Touching colour sensing tag
- ~ Distance sensing tag
- ~ Set drag mode

=> Assignment 6 :

- ~ Use the mouse x and mouse y of sense block and let the sprite say the coordinates

=> Scratch Operators Block :

- ~ Arithmetic operators
- ~ Comparison operators
- ~ and, or, not operations

=> Assignment 7 :

- ~ Pick a random number from 1 to 100 and let sprite say true if its greater than 50 otherwise false

=> Scratch Variables Block :

- ~ Set variable
- ~ Change variable
- ~ Show variable
- ~ Hide variable

=> Assignment 8 :

- ~ Set my variable value using a random operator and check if the variable is greater than 50. Let sprite say the output.

=> Conclusion :

- ~ Scratch in a nutshell
- ~ Various applications work in Scratch

Web Automation Using Selenium Community Class

Topic Name : TESTING

Sub-topic Name : AUTOMATION TESTING

Course link : <https://ineuron.ai/course/Web-Automation-Using-Selenium-Community-Class>

Course Description :-

In this course you will learn automation testing using Selenium. Selenium is one of the testing suite which has different components Selenium WebDriver, Selenium IDE, Selenium Grid. During this course, you will learn how to automate web application using Selenium 4. You can automate Smoke test, Regression test and end to end test cases.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Getting Started With Automation Testing - Orientation Program
- => Roadmap to learn Automation Testing
- => Different tools for automation in each category
- => Web Automation using Selenium
- => Interacting with Web Elements
- => Automating Web Application End-to-End Scenarios Using Selenium

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Mukesh Otwani :

~ Myself Mukesh Otwani having 10 years of experience in Automation Testing and worked with Dell International and SAP Labs India. I am also passionate teacher, mentor, have been into teaching for 8 years now and running a YouTube channel with 137000 subscribers and 480+ videos on different tools and libraries.

Curriculum details :-

- => Day 1 :
 - ~ Getting Started With Automation Testing - Roadmap to learn Automation Testing
- => Day 2 :
 - ~ Getting Started With Selenium - Downloading and Installation - WebDriver and WebElement Commands
- => Day 3 :
 - ~ Interacting With WebElements
- => Day 4 :
 - ~ Automating Web Application Using Selenium 4

Pro Live Classes

Sub-topic Name : Null

Course link : <https://ineuron.ai/course/Pro-Live-Classes>

Course Description :-

Pro Live Classes are designed and taught by industry expert specializing in various domains and sharing their experience to our students.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises

What you will learn :-

- => Developing and Open Sourcing an ML/DL package

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Curriculum details :-

- => Day1 :
 - ~ *Developing and Open Sourcing an ML/DL package*
- => Day 2 :
 - ~ *Dynamic Programming*
- => Day 3 :
 - ~ *Path To Be A Data Engineer*

OpenCV Job Preparation

Topic Name : DATA SCIENCE

Sub-topic Name : COMPUTER VISION INTERVIEW

Course link : <https://ineuron.ai/course/OpenCV-Job-Preparation>

Course Description :-

OpenCV provides a real-time optimized Computer Vision library, tools, and hardware. It also supports model execution for Machine Learning (ML) and computer vision. The goal here is to make you completely ready with OpenCV along with various interview-based questions and a complete detailed roadmap.

Course Features :-

- => Roadmap
- => Challenges
- => Interview questions
- => Resume preparation
- => Downloadable resources
- => Completion certificate

What you will learn :-

- => Various practical questions
- => Visual computing questions
- => Resume discussion
- => Working with vision projects
- => Image manipulation
- => Video manipulation

Requirements :-

- => Prior understanding in OpenCV
- => Knowledge in Python programming
- => A system with a decent internet connection
- => Dedication

Instructors :-

=> Khushali Shah :

~ A data scientist having rich experience working with MNCs and start-ups in the field of data science and machine learning. She has expertise in Chatbot development for various domains & been developing professionally for 6+ years with diverse job history. She also had positions in software module development, web app development, functional designs, requirement gathering, client interaction, and server setup/admin & can help everywhere in the stack; she loves wearing multiple hats to an extent. She also believes in enhancing her skills by training and learning new things day by day.

Curriculum details :-

- => Interview questions :
 - ~ Explain what OpenCV is? Preview
 - ~ What are Erosion and Dilation in OpenCV? Preview
 - ~ Which method of OpenCV is used to save the image and show the image?
 - ~ What is the use of Sobel operation in OpenCV?
 - ~ Enlist different types of filters available in OpenCV?
 - ~ Which function is used to draw a line in OpenCV?
 - ~ How to connect GPU with OpenCV?
 - ~ What is computer vision? Enlist a few applications?
 - ~ What is Haarcascade?
 - ~ Advantages of OpenCV
 - ~ Disadvantages of OpenCV

Face Swap Application

Topic Name : DATA SCIENCE

Sub-topic Name : COMPUTER VISION PROJECT

Course link : <https://ineuron.ai/course/Face-Swap-Application>

Course Description :-

In this project, we will learn about how to use dlib facial landmark detector to extract the facial features. Create the mask using the convex hull of the points extracted. Replace the mask of two images and do a seamless cloning of the image to blend in the color grade.

Course Features :-

- => Do Everything In Industry Grade Lab
- => Learn As Per Your Timeline
- => Hands-On Industry Real-Time Projects.
- => Self Paced Learning
- => Dashboard Access

What you will learn :-

- => Real Time Project
- => Python
- => Open-CV
- => dlib
- => Image handling in Python

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

=> Bharath J P V :

~ Enthusiast Data Scientist with a strong background in Mathematics and Statistics. Completed My Master in Statistics. Have experience teaching Mathematics and Statistics for more than a year. I thought for more than 1000 students and helped them make their careers in their respective fields. I believe in "we rise by lifting others". Following this principle, I hope to make your life easier.

Curriculum details :-

- => Welcome to the Course :
 - ~ Course Overview
 - ~ Dashboard Introduction
- => Project :- Face Swap Application :
 - ~ Introduction of Instructor
 - ~ Project Overview
 - ~ End Notes
 - ~ Problem Description
 - ~ Understand the application scope
 - ~ Tour to existing solution
 - ~ End Notes
 - ~ Solution Description
 - ~ Project setup
 - ~ Notebook Walkthrough
 - ~ Cost involved
 - ~ End Notes
 - ~ Structure overview
 - ~ Utils
 - ~ Pipeline
 - ~ Frontend app design
 - ~ Docker
 - ~ Tour to the cloud and Service Overview
 - ~ EC2 setup
 - ~ Workflow
 - ~ Adding Self hosted runner
 - ~ Conclude the project
 - ~ Points to improve from current project
 - ~ Assignments & External Resources

Class 8th Physics

Topic Name : K12

Sub-topic Name : CLASS8

Course link : <https://ineuron.ai/course/Class-8th-Physics>

Course Description :-

The Science Syllabus is elegantly designed such that it introduces the basic concepts of Science and its importance in our daily life. It will make the foundation strong for the higher classes. Physics is the Study of Physical World. It is the natural science that studies matter, its fundamental constituents, its motion and behavior through space and time, and the related entities of energy and force.

Main goal of Physics is to understand how the universe behaves.

Course Features :-

=> Self Paced Videos

What you will learn :-

=> Stars and the Solar System

=> Light

=> Some Natural Phenomena

=> Chemical Effects of Electric Current

=> Sound

=> Friction

=> Force and Pressure

Requirements :-

=> System with Internet Connection

=> Interest to learn

=> Dedication

Instructors :-

=> Jawala Prakash :

~

Curriculum details :-

=> Stars and the Solar System :

- ~ Lecture 1 : Introduction Preview
- ~ Lecture 3 : Phases of Moon Preview
- ~ Lecture 4 : Stars, light Year, Pole Star
- ~ Lecture 5 : Constellation
- ~ Lecture 6 : The Solar System
- ~ Lecture 7 : Different Planets of Solar System
- ~ Lecture 8 : Asteroids, Comets, Meteors and Meteorites, Artificial satellites
- ~ Lecture 9 : NCERT Question discussion

=> Light :

- ~ Lecture 1 : Light Introduction, How things are visible to us Preview
- ~ Lecture 2 : Laws of Reflection, Incident Ray, Reflected Ray and Normal Preview
- ~ Lecture 3 : Image Formation in Plane Mirror, Regular and Diffused Reflection
- ~ Lecture 4 : Multiple Image Formation, Kaleidoscope, Dispersion of Light
- ~ Lecture 5 : Structure and Function of Human Eye

=> Some Natural Phenomena :

- ~ Lecture 1 : Introduction
- ~ Lecture 2 : Lightning , Charging by rubbing
- ~ Lecture 3 : Types of Charge and Their Interaction
- ~ Lecture 4 : Transfer of Charge, Electroscope
- ~ Lecture 5 : Understanding Lightning, Lightning, Conductor
- ~ Lecture 6 : Earthquake, Richter Scale
- ~ Lecture 7 : Earthquake Explained
- ~ Lecture 8 : NCERT Question Discussion

=> Chemical Effects of Electric Current :

- ~ Lecture 1 : Introduction
- ~ Lecture 2 : Electricity, Heating effects of Electric Current
- ~ Lecture 3 : Do liquids conduct Electricity
- ~ Lecture 4 : Magnetic effects of Electric Current, Electrolysis
- ~ Lecture 5 : Electroplating

=> Sound :

- ~ Lecture 1 : Introduction
- ~ Lecture 2 : How Sound is Produced
- ~ Lecture 3 : Jaltarang, How Sound is Produced

- ~ Lecture 4 : Propagation of Sound
- ~ Lecture 5 : Human Ear and its Working Mechanism
- ~ Lecture 6 : Properties of Sound, Amplitude, Time period, Frequency
- ~ Lecture 7 : Characteristic of Sound, Loudness, Pitch of Sound, Quality of Sound
- ~ Lecture 8 : Audible and Inaudible Sound, Noise Pollution

=> Friction :

- ~ Lecture 1 : Understanding Friction, Cause of Friction, Factors affecting Friction
- ~ Lecture 2 : Static Friction, Sliding Friction, Rolling Friction, Fluid Friction
- ~ Lecture 3 : Friction - A necessary evil, Reduction of Friction, Fluid Friction
- ~ Lecture 4 : NCERT Question Discussion

=> Force and Pressure :

- ~ Lecture 1 : Understanding Force
- ~ Lecture 2 : Effect of Force
- ~ Lecture 3 : Types of Force, Contact and Non-contact force, Electromagnetic Force, Gravitational Force
- ~ Lecture 4 : Pressure
- ~ Lecture 5 : NCERT Question Discussion

R Shiny

Topic Name : PROGRAMMING

Sub-topic Name : R

Course link : <https://ineuron.ai/course/R-Shiny>

Course Description :-

This program is specialized in providing theoretical as well as practical understanding of the RShiny package from R which allows you to learn how to build web app using Shiny package. Course curriculum includes concepts about shiny package features, handson, sharing apps and much more!

Course Features :-

- => Self-paced Recording
- => Assignment in all modules
- => Quiz in every module
- => Completion Certificate

What you will learn :-

- => RShiny features
- => Architecture
- => Installation
- => User interface
- => R scripts
- => Tutorial
- => Sharing app

Requirements :-

- => A system with internet connection
- => Your dedication
- => Interest to learn

Instructors :-

=> Khushali Shah :

~ A data scientist having rich experience working with MNCs and start-ups in the field of data science and machine learning. She has expertise in Chatbot development for various domains & been developing professionally for 6+ years with diverse job history. She also had positions in software module development, web app development, functional designs, requirement gathering, client interaction, and server setup/admin & can help everywhere in the stack; she loves wearing multiple hats to an extent. She also believes in enhancing her skills by training and learning new things day by day.

Curriculum details :-

=> Course Introduction :

- ~ Syllabus overview Preview
- ~ Installation Preview

=> Handson :

- ~ Hello World
- ~ Shiny architecture
- ~ user interface
- ~ Widgets
- ~ server/display output
- ~ R Scripts
- ~ reactive expression
- ~ Sharing app

Full Stack Data Science Feb'21 Batch

Topic Name : DATA SCIENCE

Sub-topic Name : FULL STACK DATA SCIENCE

Course link : <https://ineuron.ai/course/Full-Stack-Data-Science-Feb'21-Batch>

Course Description :-

This is a data science full stack live mentor led certification program along with full time one-year internship provided by iNeuron intelligence private limited, where you will learn all the stack required to work in data science, data analytics and big data industry including ML ops and cloud infrastructure and real time industry project and product development along with iNeuron product development team and you will contribute on various level with iNeuron .

Course Features :-

- => Full stack Data Science masters certification
- => Job guarantee otherwise refund
- => One year of internship
- => Online Instructor-led learning: Live teaching by instructors
- => 56 + hands-on industry real-time projects.
- => 400 hours live interactive classes.
- => Every week doubt clearing session after the live classes.
- => Lifetime Dashboard access.
- => Doubt clearing one to one
- => Doubt clearing through mail and skype support team
- => Assignment in all the module
- => Quiz in every module
- => A live project with real-time implementation
- => Resume building
- => Career guidance
- => Interview Preparation
- => Regular assessment

What you will learn :-

- => Python
- => Stats
- => Machine learning
- => Deep learning
- => Computer vision
- => Natural language processing
- => Data analytics
- => Big data
- => ML ops
- => Cloud
- => Data structure and algorithm
- => Architecture
- => Domain wise project
- => Databases
- => Negotiations skills
- => Mock interview
- => Interview preparation
- => Resume building after every module

Requirements :-

- => Dedication
- => Computer with i3 and above configuration

Instructors :-

=> Sunny Bhaveen Chandra :

~ Sr. Data Scientist and lecturer at iNeuron.ai with working experience in computer vision, natural language processing and embedded systems. Hands-on experience leveraging machine learning, deep learning, transfer learning models to solve challenging business problems. Also, he has a vast interest in Robotics.

=> krish naik :

~ Having 10+ years of experience in Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

=> Sudhanshu Kumar :

~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

=> Course introduction :

- ~ a. course overview and dashboard description
- ~ b. Introduction of data science and its application in day to day life
- ~ c. Programming language overview
- ~ d. Installation (tools: sublime, vscode, pycharm, anaconda, atom, jupyter notebook, kite)
- ~ e. Virtual environment
- ~ f. Why python

=> Python basic :

- ~ a. Introduction of python and comparison with other programming language
- ~ b. Installation of anaconda distribution and other python ide
- ~ c. Python objects, number & Booleans, strings.
- ~ d. Container objects, mutability of objects
- ~ e. Operators - arithmetic, bitwise, comparison and assignment operators, operators precedence and associativity
- ~ f. Conditions (if else, if-elif-else), loops (while, for)
- ~ g. Break and continue statement and range function

=> String objects :

- ~ a. basic data structure in python
- ~ b. String object basics
- ~ c. String inbuilt methods
- ~ d. Splitting and joining strings
- ~ e. String format functions

=> List object basics :

- ~ a. List methods
- ~ b. List as stack and queues
- ~ c. List comprehensions

=> Tuples, set, dictionaries & its function :

- ~ Dictionary object methods
- ~ Dictionary comprehensions
- ~ Dictionary view objects
- ~ Functions basics, parameter passing, iterators.
- ~ Generator functions
- ~ Lambda functions
- ~ Map, reduce, filter functions.

=> Memory management :

- ~ Multithreading
- ~ Multiprocessing

=> OOps concepts :

- ~ oops basic concepts.
- ~ Creating classes
- ~ Pillars of oops
- ~ Inheritance
- ~ Polymorphism
- ~ Encapsulation
- ~ Abstraction
- ~ Decorator
- ~ Class methods and static methods
- ~ Special (magic/dunder) methods
- ~ Property decorators - getters, setters, and deletes

=> Files :

- ~ Working with files
- ~ Reading and writing files
- ~ Buffered read and write
- ~ Other file methods.
- ~ Logging, debugger
- ~ Modules and import statements

=> Exception handling difference between exceptions and error :

- ~ Exceptions handling with try-except
- ~ Custom exception handling
- ~ List of general use exception
- ~ Best practice exception handling

=> Gui framework :

- ~ What is desktop and standalone application
- ~ Use of desktop app
- ~ Examples of desktop app
- ~ Tinker
- ~ Kivy

=> Database :

- ~ SQLite
- ~ MySQL
- ~ Mongo dB
- ~ NoSQL - Cassandra

=> Web API :

- ~ What is web API
- ~ Difference b/w API and web API
- ~ Rest and soap architecture
- ~ Restful services

=> Flask :

- ~ Flask introduction
- ~ Flask application
- ~ Open link flask
- ~ App routing flask
- ~ Url building flask
- ~ Http methods flask
- ~ Templates flask
- ~ Flask project: food app
- ~ Postman
- ~ Swagger

=> Django :

- ~ Django introduction
- ~ Django project: weather app
- ~ Django project: memes generator
- ~ Django project: blog app
- ~ Django project in cloud

=> Stream lit :

- ~ Stream lit introduction
- ~ Stream lit project structure
- ~ Stream lit project in cloud

=> Pandas basic :

- ~ Python pandas - series
- ~ Python pandas data frame
- ~ Python pandas panel
- ~ Python pandas - basic functionality
- ~ Reading data from different file system

=> Pandas advance :

- ~ Python pandas re indexing python
- ~ Pandas iteration
- ~ Python pandas sorting.
- ~ Working with text data options & customization
- ~ Indexing & selecting
- ~ Data statistical functions
- ~ Python pandas - window functions
- ~ Python pandas - date functionality
- ~ Python pandas time delta
- ~ Python pandas - categorical data
- ~ Python pandas visualization
- ~ Python pandas - iotools

=> Dask :

- ~ Dask Array
- ~ Dask Bag
- ~ Dask DataFrame
- ~ Dask Delayed
- ~ Dask Futures
- ~ Dask API
- ~ Dask SCHEDULING
- ~ Dask Understanding Performance
- ~ Dask Visualize task graphs
- ~ Dask Diagnostics (local)
- ~ Dask Diagnostics (distributed)
- ~ Dask Debugging
- ~ Dask Ordering

=> Python numpy :

- ~ Numpy - ND array object.
- ~ Numpy - data types.
- ~ Numpy - array attributes.
- ~ Numpy - array creation routines.
- ~ Numpy - array from existing.
- ~ Data array from numerical ranges.
- ~ Numpy - indexing & slicing.
- ~ Numpy advanced indexing.
- ~ Numpy broadcasting.
- ~ Numpy - iterating over array.
- ~ Numpy - array manipulation.
- ~ Numpy - binary operators.
- ~ Numpy - string functions.
- ~ Numpy - mathematical functions.
- ~ Numpy - arithmetic operations.
- ~ Numpy - statistical functions.
- ~ Sort, search & counting functions.

- ~ *Numpy - byte swapping.*
- ~ *Numpy - copies & views.*
- ~ *Numpy - matrix library.*
- ~ *Numpy - linear algebra*

=> Visualization :

- ~ *Matplotlib*
- ~ *Seaborn*
- ~ *Cufflinks*
- ~ *Plotly*
- ~ *Bokeh*

=> Statistics basic :

- ~ *Introduction to basic statistics terms*
- ~ *Types of statistics*
- ~ *Types of data*
- ~ *Levels of measurement*
- ~ *Measures of central tendency*
- ~ *Measures of dispersion*
- ~ *Random variables*
- ~ *Set*
- ~ *Skewness*
- ~ *Covariance and correlation*

=> Probability distribution function :

- ~ *Probability density/distribution function*
- ~ *Types of the probability distribution*
- ~ *Binomial distribution*
- ~ *Poisson distribution*
- ~ *Normal distribution (Gaussian distribution)*
- ~ *Probability density function and mass function*
- ~ *Cumulative density function*
- ~ *Examples of normal distribution*
- ~ *Bernoulli distribution*
- ~ *Uniform distribution*
- ~ *Z stats*
- ~ *Central limit theorem*
- ~ *Estimation*

=> Statistics advance :

- ~ *a Hypothesis*
- ~ *Hypothesis testings mechanism*
- ~ *P-value*
- ~ *T-stats*
- ~ *Student t distribution*
- ~ *T-stats vs. Z-stats: overview*
- ~ *When to use a t-tests vs. Z-tests*
- ~ *Type 1 & type 2 error*
- ~ *Bayes statistics (Bayes theorem)*
- ~ *Confidence interval(ci)*
- ~ *Confidence intervals and the margin of error*
- ~ *Interpreting confidence levels and confidence intervals*
- ~ *Chi-square test*
- ~ *Chi-square distribution using python*
- ~ *Chi-square for goodness of fit test*
- ~ *When to use which statistical distribution?*
- ~ *Analysis of variance (anova)*
- ~ *Assumptions to use anova*
- ~ *Anova three type*
- ~ *Partitioning of variance in the anova*
- ~ *Calculating using python*
- ~ *F-distribution*
- ~ *F-test (variance ratio test)*
- ~ *Determining the values of f*
- ~ *F distribution using python*

=> Linear algebra :

- ~ *linear algebra*
- ~ *Vector*
- ~ *Scaler*
- ~ *Matrix*
- ~ *Matrix operations and manipulations*
- ~ *Dot product of two vectors*
- ~ *Transpose of a matrix*
- ~ *Linear independence of vectors*
- ~ *Rank of a matrix*
- ~ *Identity matrix or operator*
- ~ *Determinant of a matrix*
- ~ *Inverse of a matrix*
- ~ *Norm of a vector*
- ~ *Eigenvalues and eigenvectors*
- ~ *Calculus*

=> Solving stats problem with python

=> Stats problem implementation with spicy

=> Introduction to machine learning :

- ~ *AI vs ml vs dl vs ds*
- ~ *Supervised, unsupervised, semi-supervised, reinforcement learning*
- ~ *Train, test, validation split*

- ~ Performance
- ~ Overfitting, under fitting
- ~ Bias vs variance

=> Feature engineering :

- ~ Handling missing data
- ~ Handling imbalanced data
- ~ Up-sampling
- ~ Down-sampling
- ~ Smote
- ~ Data interpolation
- ~ Handling outliers
- ~ Filter method
- ~ Wrapper method
- ~ Embedded methods
- ~ Feature scaling
- ~ Standardization
- ~ Mean normalization
- ~ Min-max scaling
- ~ Unit vector
- ~ Feature extraction
- ~ Pca (principle component analysis)
- ~ Data encoding
- ~ Nominal encoding
- ~ One hot encoding
- ~ One hot encoding with multiple categories
- ~ Mean encoding
- ~ Ordinal encoding
- ~ Label encoding
- ~ Target guided ordinal encoding
- ~ Covariance
- ~ Correlation check
- ~ Pearson correlation coefficient
- ~ Spearmans rank correlation
- ~ Vif

=> Feature selection :

- ~ Feature selection
- ~ Recursive feature elimination
- ~ Backward elimination
- ~ Forward elimination

=> Exploratory data analysis :

- ~ Feature engineering and selection.
- ~ Analyzing bike sharing trends.
- ~ Analyzing movie reviews sentiment.
- ~ Customer segmentation and effective cross selling.
- ~ Analyzing wine types and quality.
- ~ Analyzing music trends and recommendations.
- ~ Forecasting stock and commodity prices

=> Regression :

- ~ Linear regression
- ~ Gradient descent
- ~ Multiple linear regression
- ~ Polynomial regression
- ~ R square and adjusted r square
- ~ Rmse , mse, mae comparison
- ~ Regularized linear models
- ~ Ridge regression
- ~ Lasso regression
- ~ Elastic net
- ~ Complete end-to-end project with deployment on cloud and ui

=> Logistics regression :

- ~ Logistics regression in-depth intuition
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Hyper parameter tuning
- ~ Grid search cv
- ~ Randomize search cv
- ~ Data leakage
- ~ Confusion matrix
- ~ Precision, recall, f1 score ,roc, auc
- ~ Best metric selection
- ~ Multiclass classification in lr
- ~ Complete end-to-end project with deployment in multi cloud platform

=> Decision tree :

- ~ Decision tree classifier
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Confusion matrix
- ~ Precision, recall, f1 score ,roc, auc
- ~ Best metric selection
- ~ Decision tree repressor
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Performance metrics
- ~ Complete end-to-end project with deployment in multi cloud platform

=> Support vector machines :

- ~ Linear svm classification
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Soft margin classification
- ~ Nonlinear svm classification
- ~ Polynomial kernel
- ~ Gaussian, rbf kernel
- ~ Data leakage
- ~ Confusion matrix
- ~ precision, recall, f1 score, roc, auc
- ~ Best metric selection
- ~ Svm regression
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Complete end-to-end project with deployment

=> Nave Bayes :

- ~ Bayes theorem
- ~ Multinomial nave Bayes
- ~ Gaussian nave Bayes
- ~ Various type of Bayes theorem and its intuition
- ~ Confusion matrix
- ~ precision, recall, f1 score, roc, auc
- ~ Best metric selection
- ~ Complete end-to-end project with deployment

=> Ensemble techniques and its types :

- ~ Definition of ensemble techniques
- ~ Bagging technique
- ~ Bootstrap aggregation
- ~ Random forest (bagging technique)
- ~ Random forest regressor
- ~ Random forest classifier
- ~ Complete end-to-end project with deployment

=> Boosting :

- ~ Boosting technique
- ~ Ada boost
- ~ Gradient boost
- ~ Xgboost
- ~ Complete end-to-end project with deployment

=> Stacking :

- ~ Stacking technique
- ~ Complete end-to-end project with deployment

=> Knn :

- ~ Knn classifier
- ~ Knn regressor
- ~ Variants of knn
- ~ Brute force knn
- ~ K-dimension tree
- ~ Ball tree
- ~ Complete end-to-end project with deployment

=> Dimensionality reduction :

- ~ The curse of dimensionality
- ~ Dimensionality reduction technique
- ~ Pca (principle component analysis)
- ~ Mathematics behind pca
- ~ Scree plots
- ~ Eigen-decomposition approach

=> Clustering :

- ~ Clustering and their types
- ~ K-means clustering
- ~ K-means++
- ~ Batch k-means
- ~ Hierarchical clustering
- ~ Dbscan
- ~ Evaluation of clustering
- ~ Homogeneity, completeness and v-measure
- ~ Silhouette coefficient
- ~ Davies-bouldin index
- ~ Contingency matrix
- ~ Pair confusion matrix
- ~ Extrinsic measure
- ~ Intrinsic measure
- ~ Complete end-to-end project with deployment

=> Anomaly detection :

- ~ Anomaly detection types
- ~ Anomaly detection applications
- ~ Isolation forest anomaly detection algorithm
- ~ Density-based anomaly detection (local outlier factor) algorithm
- ~ Support vector machine anomaly detection algorithm
- ~ Dbscan algorithm for anomaly detection
- ~ Complete end-to-end project with deployment

=> Time-series :

- ~ What is a time series?
- ~ Old techniques
- ~ Arima
- ~ Acf and pacf
- ~ Time-dependent seasonal components.
- ~ Autoregressive (ar),
- ~ Moving average (ma) and mixed arma- modeler.
- ~ The random walk model.
- ~ Box-jenkins methodology.
- ~ Forecasts with arima and var models.
- ~ Dynamic models with time-shifted explanatory variables.
- ~ The koyck transformation.
- ~ Partial adjustment and adaptive expectation models.
- ~ Granger's causality tests.
- ~ Stationarity, unit roots and integration
- ~ Time series model performance
- ~ Various approach to solve time series problem
- ~ Complete end-to-end project with deployment
- ~ Prediction of nifty stock price and deployment

=> NLP basic :

- ~ Tokenization
- ~ Pos tags and chunking
- ~ Stop words
- ~ Stemming and lemmatization
- ~ Named entity recognition (ner)
- ~ Word vectorization (word embedding)
- ~ Tfidf
- ~ Complete end-to-end project with deployment

=> Machine learning pipeline :

- ~ Aws segmaker
- ~ Aure ml studio
- ~ Ml flow
- ~ Kube flow

=> Model retraining approach

=> Auto ML :

- ~ H2o
- ~ Pycaret
- ~ Auto sklearn
- ~ Auto time series
- ~ Auto viml
- ~ Auto gluon
- ~ Auto viz
- ~ Tpot
- ~ Auto neuro

=> Neural network a simple perception. :

- ~ Detail mathematical explanation
- ~ Neural network overview and its use case.
- ~ Various neural network architect overview.
- ~ Use case of neural network in nlp and computer vision.
- ~ Activation function -all name
- ~ Multilayer network.
- ~ Loss functions. - all 10
- ~ The learning mechanism.
- ~ Optimizers. - all 10
- ~ Forward and backward propagation.
- ~ Weight initialization technique
- ~ Vanishing gradient problem
- ~ Exploding gradient problem
- ~ Visualization of nn

=> Hardware setup GPU :

- ~ Gpu introduction.
- ~ Various type of gpu configuration.
- ~ Gpu provider and its pricing.
- ~ Paper space gpu setup.
- ~ Running model in gpu

=> Tensor flow installation environment setup for deep learning :

- ~ Colab pro setup
- ~ Tensor flow installation 2.0 .
- ~ Tensor flow installation 1.6 with virtual environment.
- ~ Tensor flow 2.0 function.
- ~ Tensor flow 2.0 neural network creation.
- ~ Tensor flow 1.6 functions.
- ~ Tensor flow 1.6 neural network and its functions.
- ~ Keras introduction.
- ~ Keras in-depth with neural network creation.
- ~ Mini project in tensorflow.
- ~ Tensorspace
- ~ Tensorboard integration
- ~ Tensorflow playground
- ~ Netron

=> Pytorch :

- ~ pytorch installation.
- ~ Pytorch functional overview.

~ *Pytorch neural network creation.*

=> **Mxnet :**

~ *Mxnet installation*
~ *Mxnet in depth function overview*
~ *Mxnet model creation and training*

=> **Keras tuner :**

~ *Keras tuner installation and overview*
~ *Finding best parameter from keras tuner*
~ *Keras tuner application across various neural network*

=> **Cnn overview :**

~ *Cnn definition*
~ *Various cnn based architecture*
~ *Explanation end to end cnn network*
~ *Cnn explainer*
~ *Training cnn*
~ *Deployment in azure cloud*
~ *Performance tuning of cnn network*

=> **Advance computer vision part 1 :**

~ *Various cnn architecture with research paper and mathematics*
~ *Lenet-5 variants with research paper and practical*
~ *Alexnet variants with research paper and practical*
~ *Googlenet variants with research paper and practical*
~ *Transfer learning*
~ *Vggnet variants with research paper and practical*
~ *Resnet variants with research paper and practical*
~ *Inception net variants with research paper and practical*
~ *Darknet variants with research paper and practical*

=> **Advance computer vision part 2 :**

~ *Object detection in-depth*
~ *Transfer learning*
~ *Rcnn with research paper and practical*
~ *Fast rcnn with research paper and practical*
~ *Faster r cnn with research paper and practical*
~ *Ssd with research paper and practical*
~ *Ssd lite with research paper and practical*

=> **Training of custom object detection :**

~ *Tfod introduction*
~ *Environment setup with tfod*
~ *Gpu vs tpu vs cpu*
~ *Various gpu comparison*

=> **Advance computer vision part 3 :**

~ *Yolo v1 with research paper and practical*
~ *Yolo v2 with research paper and practical*
~ *Yolo v3 with research paper and practical*
~ *Yolo v4 with research paper and practical*
~ *Yolo v5 with research paper and practical*
~ *Retina net*
~ *Face net*
~ *Detectron2 with practical and live testing*

=> **Object segmentation :**

~ *Semantic segmentation*
~ *Panoptic segmentation*
~ *Masked rcnn*
~ *Practical with detectron*
~ *Practical with tfod*

=> **Object tracking :**

~ *Detail of object tracking*
~ *Kalman filtering*
~ *Sort*
~ *Deep sort*
~ *Object tracking live project with live camera testing*

=> **OCR :**

~ *Introduction to ocr*
~ *Various framework and api for ocr*
~ *Practical implementation of ocr*

=> **Advance NLP with deep-learning :**

~ *Overview computational linguistic.*
~ *History of nlp.*
~ *Why nlp*
~ *Use of nlp*

=> **Text processing importing text. :**

~ *Web scrapping.*
~ *Text processing*
~ *Understanding regex.*
~ *Text normalization*
~ *Word count.*
~ *Frequency distribution.*
~ *Text annotation.*
~ *Use of annotator.*
~ *String tokenization*

- ~ *Annotator creation.*
- ~ *Sentence processing.*
- ~ *Lemmatization in text processing*
- ~ *Pos.*
- ~ *Named entity recognition*
- ~ *Dependency parsing in text.*
- ~ *Sentimental analysis*

=> **Spacy :**

- ~ *Spacy overview.*
- ~ *Spacy function*
- ~ *Spacy function implementation in text processing.*
- ~ *Pos tagging, challenges and accuracy.*
- ~ *Entities and named entry recognition*
- ~ *Interpolation, language models*
- ~ *Nltk*
- ~ *Text blob*
- ~ *Stanford nlp*

=> **RNN :**

- ~ *Recurrent neural networks.*
- ~ *Long short term memory (lstm)*
- ~ *Bi lstm.*
- ~ *Stacked lstm*
- ~ *Gru implementation.*
- ~ *Building a story writer using character level rnn.*

=> **Word embedding :**

- ~ *Word embedding*
- ~ *Co-occurrence vectors*
- ~ *Word2vec*
- ~ *Doc2vec*

=> **Attention based model :**

- ~ *Seq 2 seq.*
- ~ *Encoders and decoders.*
- ~ *Attention mechanism.*
- ~ *Attention neural networks*
- ~ *Self-attention*

=> **Transfer learning in nlp :**

- ~ *Introduction to transformers.*
- ~ *Bert model.*
- ~ *Elmo model.*
- ~ *Gpt1 model*
- ~ *Gpt2 model.*
- ~ *Albert model.*
- ~ *Distilbert model*

=> **Deployment of model and performance tuning :**

- ~ *Deep learning model deployment strategies.*
- ~ *Deep learning project architecture*
- ~ *Deep learning model deployment phase.*
- ~ *Deep learning model retraining phase.*
- ~ *Deep learning model deployment in aws.*
- ~ *Deep learning model deployment in azure.*
- ~ *Deep learning model deployment in gcloud.*

=> **Big data introduction :**

- ~ *What is big data?*
- ~ *Big data application*
- ~ *Big data pipeline*

=> **Hadoop :**

- ~ *Hadoop introduction*
- ~ *Hadoop setup and installation*

=> **Spark :**

- ~ *Spark*
- ~ *Spark overview.*
- ~ *Spark installation.*
- ~ *Spark rdd.*
- ~ *Spark data frame.*
- ~ *Spark architecture.*
- ~ *Spark ml lib*
- ~ *Spark NLP*
- ~ *Spark linear regression*
- ~ *Spark logistic regression*
- ~ *Spark decision tree*
- ~ *Spark naive bayes*
- ~ *Spark xg boost.*
- ~ *Spark time series*
- ~ *Spark deployment in local server*
- ~ *Spark job automation with*
- ~ *Scheduler*

=> **Kafka :**

- ~ *Kafka introduction*
- ~ *Kafka installation*
- ~ *Spark streaming*
- ~ *Spark with Kafka*

=> Tableau :

- ~ Talking about Business Intelligence
- ~ Tools and Methodologies used in BI
- ~ Why Visualization is getting more popular
- ~ Why Tableau?
- ~ Gartner Magic Quadrant of Market Leaders
- ~ Future business impact of BI
- ~ Tableau Products
- ~ Tableau Architecture
- ~ BI Project Execution
- ~ Tableau Installation in local system
- ~ Introduction to Tableau Prep
- ~ Tableau Prep Builder User Interface
- ~ Data Preparation techniques using Tableau Prep Builder tool
- ~ How to connect Tableau with different data source
- ~ Visual Segments
- ~ Visual Analytics in depth
- ~ Filters, Parameters & Sets
- ~ Tableau Calculations using functions
- ~ Tableau Joins
- ~ Working with multiple data source (Data Blending)
- ~ Building Predictive Models
- ~ Dynamic Dashboards and Stories
- ~ Sharing your Reports
- ~ Tableau Server
- ~ User Security
- ~ Scheduling

=> Power BI :

- ~ Power BI introduction and overview
- ~ Key Benefits of Power BI
- ~ Power BI Architecture
- ~ Power BI Process
- ~ Components of Power BI
- ~ Power BI - Building Blocks
- ~ Power BI vs other BI tools
- ~ Power Installation
- ~ Overview of Power BI Desktop
- ~ Data Sources in Power BI Desktop
- ~ Connecting to a data Sources
- ~ Query Editor in Power BI
- ~ Views in Power BI
- ~ Field Pane
- ~ Visual Pane
- ~ Custom Visual Option
- ~ Filters
- ~ Introduction to using Excel data in Power BI
- ~ Exploring live connections to data with Power BI
- ~ Connecting directly to SQL Azure, HD Spark, SQL Server Analysis Services/ My SQL
- ~ Import Power View and Power Pivot to Power BI
- ~ Power BI Publisher for Excel
- ~ Content packs
- ~ Introducing Power BI Mobile
- ~ Power Query Introduction
- ~ Query Editor Interface
- ~ Clean and Transform your data with Query Editor
- ~ Data Type
- ~ Column Transformations vs Adding Columns
- ~ Text Transformations
- ~ Cleaning irregularly formatted data -Transpose
- ~ Date and Time Calculations
- ~ Advance editor: Use Case
- ~ Query Level Parameters
- ~ Combining Data Merging and Appending
- ~ Data Modelling
- ~ Calculated Columns
- ~ Measures/New Quick Measures
- ~ Calculated Tables
- ~ Optimizing Data Models
- ~ Row Context vs Set Context
- ~ Cross Filter Direction
- ~ Manage Data Relationship
- ~ Why is DAX important?
- ~ Advanced calculations using Calculate functions
- ~ DAX queries

=> Reinforcement Learning

Project details :-

=> Python Project :

- ~ Weeding script
- ~ Image resizing
- ~ Jupyter notebook merging, reading etc.
- ~ Sending emails
- ~ Weather app
- ~ Memes generator
- ~ Food log app
- ~ Web scrapping

- ~ Web crawlers for image data sentiment analysis and product review sentiment analysis.
- ~ Integration with web portal.
- ~ Integration with rest api, web portal and mongo db. on azure
- ~ Deployment on web portal on azure.
- ~ Text mining
- ~ Social media data churn
- ~ Mass copy, paste

=> Chatbot projects :

- ~ Chatbot using Microsoft Luis
- ~ Chatbot using google dialog flow
- ~ Chatbot using amazon lex
- ~ Chatbot using rasa nlu
- ~ Deployment of Chabot with web , telegram , WhatsApp, skype

=> Major projects :

- ~ Healthcare analytics prediction of medicines based on Fitbit band.
- ~ Revenue forecasting for startups.
- ~ Prediction of order cancellation at the time of ordering inventories.
- ~ anomaly detection in inventory packaged material.
- ~ Fault detection in wafers based on sensor data.
- ~ Demand forecasting for fmcg product.
- ~ Threat identification in security system.
- ~ Defect detection in vehicle engine.
- ~ Food price forecasting with zomato dataset.
- ~ Fault detection in wafers based on sensor data.
- ~ Cement strength reg.
- ~ Credit card fraud.
- ~ Forest cover classification.
- ~ Fraud detection.
- ~ Income prediction.
- ~ Mushroom classifier.
- ~ phishing classifier
- ~ Thyroid detection.
- ~ Visibility climate

=> Computer vision project :

- ~ Traffic surveillance system.
- ~ Object identification.
- ~ Object tracking.
- ~ Object classification.
- ~ Tensorflow object detection.
- ~ Image to text processing.
- ~ Speech to speech analysis.
- ~ Vision based attendance system

=> Mini NLP project :

- ~ Machine translation.
- ~ Abstractive text summarization.
- ~ Keyword spotting.
- ~ Language modelling.
- ~ Document summarization

=> Nlp transfer learning project :

- ~ Deployment and integration with UI machine translation.
- ~ Question answering (like chat bot)
- ~ Sentiment analysis imdb.
- ~ Text search (with synonyms).
- ~ Text classifications.
- ~ Spelling corrector.
- ~ Entity (person, place or brand) recognition.
- ~ Text summarization.
- ~ Text similarity (paraphrase).
- ~ Topic detection.
- ~ Language identification.
- ~ Document ranking.
- ~ Fake news detection
- ~ Plagiarism checker
- ~ Text summarization extractive
- ~ Text summarization abstractive.

=> NLP end to end project with architecture and deployment :

- ~ Movie review using bert
- ~ Ner using bert
- ~ Pos bert
- ~ Text generation gpt 2
- ~ Text summarization xlnet
- ~ Abstract bert
- ~ Machine translation
- ~ Nlp text summarization custom
- ~ Keras/tensorflow
- ~ Language identification
- ~ Text classification using fast bert
- ~ Neuralcore
- ~ Detecting fake text using gltr with bert and gpt2
- ~ Fake news detector using gpt2
- ~ Python plagiarism checker type a message
- ~ Question answering

Drone Live Class

Topic Name : K12

Sub-topic Name : CLASS10

Course link : <https://ineuron.ai/course/Drone-Live-Class>

Course Description :-

iNeuron has created a course in collaboration with industry experts who are achieving incredible things with autonomous robotics. You can learn about the process of making a drone or how drones are used in various sectors. The majority of drones are ready to go to the skies. We provide Robotics concepts to teach you about dynamics and control so you can get a better understanding of how that works. We present an outline of Drones and Autonomous Systems for individuals who want to learn more about their mechanics. Each lecture is intended to lay the groundwork for how autonomous systems can alter our perceptions of robotics.

Course Features :-

- => Online live classes
- => Doubt Clearing
- => Live-Class Recording
- => Real-time Project
- => Assignment in all modules
- => Quiz in every module
- => Career Counselling
- => Completion Certificate

What you will learn :-

- => Basic understanding of UAV and Maneuvering of Aircraft.
- => Construction(Multirotor drone basic)
- => Drone Body Assembly
- => Transmitter and Receiver
- => Flight controller
- => Calibrations

Requirements :-

- => No prior experience of Drones

Instructors :-

- => Sunny Bhavleen Chandra :

~ Sr. Data Scientist and lecturer at iNeuron.ai with working experience in computer vision, natural language processing and embedded systems. Hands-on experience leveraging machine learning, deep learning, transfer learning models to solve challenging business problems. Also, he has a vast interest in Robotics.

Curriculum details :-

- => Introduction :

- ~ What is this course all about?
- ~ What is in this course?
- ~ Pre-knowledge required.

- => Basic understanding of UAV and Maneuvering of Aircraft. :

- ~ Aerodynamics of UAV
- ~ Forces of Flight
- ~ Theory of flight
- ~ Centre of Gravity
- ~ Thrust to Weight Ratio
- ~ Mach Number.

- => Types of UAV

<Parts of UAV and their diagrams > :

- ~ Multi-Rotor
- ~ Fixed wings
- ~ Single rotor
- ~ Hybrid VTOL
- ~ Their Pros, and Cons

- => Construction(Multirotor drone basic) :

- ~ Axis of rotation for Drone
- ~ Components needed to construct a drone.
- ~ Terminologies
- ~ Tools needed for drone construction
- ~ Conclusion.

=> Explaining each component and its functions(Motors, Frame, and ESC) :

- ~ Different types of drone frame
- ~ How to choose it
- ~ Motors: what are BLDC motors
- ~ Why we are using it.
- ~ Their Rating and Explaining how to correctly select the motors for the drone.

=> Explaining each component and its functions(Power Distribution Boards & Common Module wire and ESC) :

- ~ How to solder ESC power wires
- ~ How to solder the Battery power wires and connectors

=> Explaining each component and its functions(Drone Body Assembly) :

- ~ Attaching the arms to the frame of the drone.
- ~ Attaching the Motors to the Arms
- ~ Attaching the ESC to the arm and connecting them to the motors.
- ~ Propellers and how to select a propeller for your drone, and how to distinguish between clockwise and anti-clock propellers

=> Explaining each component and its functions(Transmitter and Receiver) :

- ~ Introduction about the Transmitter and Receiver
- ~ Binding the Receiver with the Transmitter
- ~ Explaining about Telemetry
- ~ Explaining the features Of the Transmitter with the help of servo and how we can utilize all of its features

=> Explaining each component and its functions(Flight controller) :

- ~ Explaining Different aspects of Pixhawk flight controller
- ~ Connecting the GPS module to the flight controller
- ~ Attaching all the necessary components to the flight controller (Switch Buzzer, Telemetry, Power module)
- ~ Connecting ESC to the Pixhawk with the correct order
- ~ Connecting RC receiver with the Pixhawk

=> Explaining each component and its functions(Battery and Charge) :

- ~ Explain the Battery and charger

=> Explaining each component and its functions(Software MISSION PLANNER) :

- ~ 1. Downloading and setting up the Mission Planner
- ~ 2. Connecting Pixhawk with the Mission Planner
- ~ 3. Explaining various features of Mission Planner

=> Explaining each component and its functions(Calibrations Part) :

- ~ Calibrating GPS and other onboard sensors with the Pixhawk using Mission Planner
- ~ Calibrating ESC and Motors

=> Explaining each component and its functions(FIRST FLIGHT) :

- ~ Taking First Flight
- ~ Demonstrating how to control UAV using the remote controller

AI Ops Projects

Topic Name : DATA SCIENCE

Sub-topic Name : MLOPS PROJECT

Course link : <https://ineuron.ai/course/AIOps-Projects>

Course Description :-

Learn how to create a machine learning system from start to finish. Develop skills in training, deploying, scaling, and monitoring your machine learning model's performance in production. This course is specifically designed for deploying and scaling machine learning and deep learning applications.

Course Features :-

- => Challenges
- => Various project implementation
- => Quizzes
- => Assignments
- => Downloadable resources
- => Completion certificate

What you will learn :-

- => Design end-to-end machine learning system
- => Monitor and visualize the performance of apps
- => Build CI/CD pipelines
- => Optimizing the model training & prediction pipelines

Requirements :-

- => Minimum System requirement: Intel Core i3 processor and 4GB RAM or Higher
- => A system with a decent internet connection
- => AWS, Azure, GCP, Digital Ocean accounts
- => Your dedication
- => Interest to learn

Instructors :-

=> Sunny Bhavleen Chandra :

~ Sr. Data Scientist and lecturer at iNeuron.ai with working experience in computer vision, natural language processing and embedded systems. Hands-on experience leveraging machine learning, deep learning, transfer learning models to solve challenging business problems. Also, he has a vast interest in Robotics.

Curriculum details :-

=> Linux :

- ~ Deploying flask app in EC2 Preview
- ~ Deploy Unicorn app in EC2
- ~ Configuring Nginx for Deployment
- ~ Configuring Elastic IP & SSL certificates for deployment
- ~ Deploy ML application on EC2

=> DVC :

- ~ AIOps project DVC NLP usecase part 01
- ~ AIOps project DVC NLP usecase part 02 Preview
- ~ AIOps project DVC NLP usecase part 03
- ~ AIOps project DVC NLP usecase part 04
- ~ AIOps project DVC NLP usecase part 05
- ~ AIOps project DVC NLP usecase part 06
- ~ AIOps project DVC NLP usecase part 07
- ~ AIOps project DVC NLP usecase part 08
- ~ AIOps project DVC NLP usecase part 09
- ~ AIOps project DVC NLP usecase part 10
- ~ AIOps project DVC NLP usecase part 11
- ~ AIOps project DVC NLP usecase part 12
- ~ AIOps project DVC NLP usecase part 13
- ~ AIOps project DVC NLP usecase part 14
- ~ AIOps project DVC NLP usecase part 15
- ~ Deploy ML application using DVC
- ~ Deploy computer vision application using DVC
- ~ Deploy DL application using DVC with Tensorflow
- ~ Deploy DL application using DVC with Pytorch

=> Docker :

- ~ Dockerize Python Application

- ~ Dockerize Machine Learning Application
- ~ Dockerize computer vision Application
- ~ Dockerize NLP Application
- ~ Docker Compose for multi-container deployments
- ~ Dockerize DL application build with Tensorflow
- ~ Dockerize DL application build with Pytorch

=> MLFlow :

- ~ Deploy ML application using MLFlow
- ~ Deploy vision application using MLFlow
- ~ Deploy NLP application using MLFlow
- ~ Deploy DL application on MLFlow with Tensorflow
- ~ Deploy DL application on MLFlow with Pytorch

=> Kubernetes :

- ~ Deploy ML application using Kubernetes
- ~ Deploy vision application using Kubernetes
- ~ Deploy NLP application using Kubernetes
- ~ Deploy DL application on Kubernetes with Tensorflow
- ~ Deploy DL application on Kubernetes with Pytorch

=> Kubeflow :

- ~ Deploy ML end-to-end application using Kubeflow
- ~ Deploy vision end-to-end application using Kubeflow
- ~ Deploy NLP end-to-end application using Kubeflow
- ~ Deploy DL end-to-end application on Kubeflow with TensorFlow
- ~ Deploy DL end-to-end application on Kubeflow stack with Pytorch

=> AWS MLOps :

- ~ Deploy ML application using AWS AI stack
- ~ Deploy computer vision application using AWS AI stack
- ~ Deploy NLP application using AWS AI stack
- ~ Deploy DL application on AWS AI stack with TensorFlow
- ~ Deploy DL application on AWS AI stack with Pytorch

=> Azure MLOps :

- ~ Deploy computer vision application using Azure AI stack
- ~ Deploy computer vision application using GCP AI stack
- ~ Deploy NLP application using Azure AI stack
- ~ Deploy DL application on Azure AI stack with TensorFlow
- ~ Deploy DL application on Azure AI stack with Pytorch

=> GCP MLOps :

- ~ Deploy ML application using GCP AI stack
- ~ Deploy vision application using GCP AI stack
- ~ Deploy NLP application using GCP AI stack
- ~ Deploy DL application on GCP AI stack with TensorFlow
- ~ Deploy DL application on GCP AI stack with Pytorch

=> Digital Ocean MLOps :

- ~ Deploy ML application using Digital Ocean AI stack
- ~ Deploy computer vision application using Digital Ocean AI stack
- ~ Deploy NLP application using Digital Ocean AI stack
- ~ Deploy DL application on Digital Ocean AI stack with Tensorflow
- ~ Deploy DL application on GCP AI stack with Pytorch

Recommender System

Topic Name : DATA SCIENCE

Sub-topic Name : MACHINE LEARNING PROJECT

Course link : <https://ineuron.ai/course/Recommender-System>

Course Description :-

Recommender System

Course Features :-

- => Roadmap
- => Interview Questions and their approach discussions
- => Learn solving Scenario-based questions
- => Improve your skills and knowledge by solving different types of questions
- => Assignments
- => Quizzes
- => Challenges
- => Completion certificate

What you will learn :-

- => Basic understanding of digital marketing tools
- => Search engine optimization techniques
- => How to work on Google ads
- => Social media marketing on various platforms
- => Email marketing using Mailchimp
- => Content creations like written, graphics and video

Requirements :-

- => Understanding of basic marketing terminologies
- => A system with internet connection
- => Dedication

Instructors :-

=> Boktiar Ahmed Bappy :

~ This is Bappy. I aim for simplicity in Data Science. Real Creativity won't make things more complex. Instead, I will simplify them, Interested in a Data Science Career and so develop myself accordingly. Data Scientist and lecturer with working experience in Machine Learning, Deep Learning, Microcontrollers and Electronics systems. Hands-on experience in classification, regression, clustering, computer vision, natural language processing and transfer learning models to solve challenging business problems. I have a huge interest in Robotics. I have innovated a lot of innovations, ideas, projects & robots and got a lot of achievements.

Curriculum details :-

=> Book Recommender System :

- ~ Introduction & Demo Preview
- ~ What is recommender system & types Preview
- ~ Project Architecture
- ~ Data Collection
- ~ Data Loading
- ~ Analyzing data Part1
- ~ Analyzing data Part 2
- ~ Converting to pivot table
- ~ Model Building
- ~ Creating VENV
- ~ Making setup
- ~ Implementing web app
- ~ Deployment Preview

=> Movie Recommender System :

- ~ Introduction & Demo Preview
- ~ What is recommendation system & types?
- ~ Project Architecture
- ~ Data Collection
- ~ Data Loading
- ~ Analyzing data-Part1
- ~ Analyzing data-Part2
- ~ Generating embeddings
- ~ Creating VENV
- ~ Making setup
- ~ Implementing web app
- ~ Deployment Preview

GCP Interview

Topic Name : CLOUD

Sub-topic Name : GCP INTERVIEW PREPARATION

Course link : <https://ineuron.ai/course/GCP-Interview>

Course Description :-

This course is designed to prepare you for certifications and provide you with a comprehensive path to help you get started in your career as a newbie, or even an experienced individual, with a deeper grasp of Google Cloud architecture and services.

Course Features :-

- => Roadmap
- => Interview questions
- => Resume preparation
- => Completion Certificate
- => Downloadable resources

What you will learn :-

- => How to design solutions for GCP platform

- => Understand the important concepts of GCP
- => Interview questions
- => Sample resumes

Requirements :-

- => Prior understanding of GCP

- => GCP account
- => A System with internet connection
- => Your dedication

Instructors :-

=> Khushali Shah :

~ A data scientist having rich experience working with MNCs and start-ups in the field of data science and machine learning. She has expertise in Chatbot development for various domains & been developing professionally for 6+ years with diverse job history. She also had positions in software module development, web app development, functional designs, requirement gathering, client interaction, and server setup/admin & can help everywhere in the stack; she loves wearing multiple hats to an extent. She also believes in enhancing her skills by training and learning new things day by day.

Curriculum details :-

=> Basic cloud computing :

- ~ What are the key features of cloud computing ? Preview
- ~ What are the different cloud deployment models?
- ~ What is the following is not true about IaaS ?
- ~ Which of the following Statements regarding a private cloud delivery model are inaccurate ?
- ~ An organization has decided to host its website on Microsoft Azure using WordPress. The CFO would like to know what the best delivery model is for all customers. The CFO wants to be assured the website is publicly accessible. What would you recommend?
- ~ Your organization, a health care practice, is required by law to maintain patient records for seven years. Recently, the organization invested in an electronic health records (EHR) system. The business has been in practice for 18 years and still maintains 5,000+ previous patient files from the past. By law, all these records must be digitized. What type of cloud solution deployment model should the EHR company suggest the health practice implement?
- ~ The most fundamental unit of cloud computing is?

=> GCP :

- ~ Which of the following is not database services offered by Google GCP? Preview
- ~ Which of the following services are serverless?
- ~ Which of the below gcloud command is used to create a custom role?
- ~ Which Google Cloud Platform service can be used for serverless file processing and running website backend?
- ~ Which of the following Cloud shell command will open a blank editor window?
- ~ In Google Cloud Platform, your network and all its resources are considered as?
- ~ Cloud Vision is a ____
- ~ How are the Google Compute Engine and Google App Engine related?
- ~ What is Google App Engine?
- ~ You have a definition for an instance template that contains a web application. You have been asked to deploy the application to scale based on the HTTP traffic it receives. What should you do?

~ You are creating a Kubernetes Engine cluster to deploy multiple pods inside the cluster. All container logs must be stored in BigQuery for later analysis. You want to follow Google-recommended practices. Which two approaches can you take?

=> gcloud :

~ Which of the following gcloud command is used to set scopes?
~ You have a project using BigQuery. You want to list all BigQuery jobs for that project. You want to set this project as the default for the bq command-line tool. What should you do?
~ Your project has all its Compute Engine resources in the europe-west1 region. You want to set europe-west1 as the default region for gcloud commands. What should you do?

=> Billing :

~ What is the difference between Billing Alerts and Budget Quotas in GCP ?
~ Which one is not GCP Billing and Budgeting services ?
~ Your company has reserved a monthly budget for your project. You want to be informed automatically of your project spend so that you can take action when you approach the limit. What should you do?
~ You developed a new application for App Engine and are ready to deploy it to production. It would be best to estimate the costs of running your application on the Google Cloud Platform as accurately as possible. What should you do?
~ It would help to estimate the annual cost of running a Bigquery query that is scheduled to run nightly. What should you do?
~ Scopes are access controls that are applied to _____?
~ When admin assigns read-only permission to a custom role? What level of privileges are given?
~ Which one is not the method for the authentication of Google Compute Engine API?
~ What is the command to authenticate through Docker Container Registry ?
~ You are a project owner and need your co-worker to deploy a new version of your application to App Engine. You want to follow Googles recommended practices. Which IAM roles should you grant your co-worker?
~ You want to find out who in your organization has Owner access to a project called "my-project". What should you do?
~ You want to create a new role for your colleagues that will apply to all current and future projects created in your organization. The role should have the permissions of the BigQuery Job User and Cloud Bigtable User roles. You want to follow Googles recommended practices. How should you create the new role?
~ You work in a small company where everyone should be able to view all resources of a specific project. You want to grant them access following Google's recommended practices. What should you do?

=> IAM :

~ You created an update for your application on App Engine. You want to deploy the update without impacting your users. You want to be able to roll back as quickly as possible if it fails. What should you do?

=> Compute Engine :

~ In Google cloud platform, pricing of a VM can be vary based on _____
~ In Google cloud platform, you cannot increase RAM of deployed VM instance.
~ In GCP, to change the machine type of an existing VM instance, the instance must be
~ You have an application server running on Compute Engine in the europe-west1-d zone. You need to ensure high availability and replicate the server to the europe-west2-c zone using the fewest steps possible. What should you do?
~ If an instance is deleted by mistake, is it possible to retrieve it back? If yes then how?

=> Storage :

~ What are the libraries and tools for cloud storage on GCP ?
~ Your company processes high volumes of IoT data that are time-stamped. The total data volume can be several petabytes. The data needs to be written and changed at a high speed. You want to use the most performant storage option for your data. Which product should you use?
~ Your application has a large international audience and runs stateless virtual machines within a managed instance group across multiple locations. One feature of the application lets users upload files and share them with other users. Files must be available for 30 days; after that, they are removed from the system entirely. Which storage solution should you choose?
~ Your company has a mission-critical application that serves users globally. You need to select a transactional, relational data storage system for this application. Which two products should you choose?

=> App Engine :

~ You need to create a new Kubernetes Cluster on Google Cloud Platform that can autoscale the number of worker nodes. What should you do?
~ You have a Kubernetes cluster with 1 node-pool. The cluster receives a lot of traffic and needs to grow. You decide to add a node. What should you do?
~ You have created a Kubernetes deployment, called Deployment-A, with 3 replicas on your cluster. Another deployment, called Deployment-B, needs access to Deployment-A. You cannot expose Deployment-A outside of the cluster. What should you do?

=> Kubernetes :

~ You need to create a new Kubernetes Cluster on Google Cloud Platform that can autoscale the number of worker nodes. What should you do?
~ You have a Kubernetes cluster with 1 node-pool. The cluster receives a lot of traffic and needs to grow. You decide to add a node. What should you do?
~ You have created a Kubernetes deployment, called Deployment-A, with 3 replicas on your cluster. Another deployment, called Deployment-B, needs access to Deployment-A. You cannot expose Deployment-A outside of the cluster. What should you do?

=> ML :

~ You work for a textile manufacturer and have been asked to build a model to detect and classify fabric defects. You trained a machine learning model with high recall based on high resolution images taken at the end of the production line. You want quality control inspectors to gain trust in your model. Which technique should you use to understand the rationale of your classifier?
~ You need to write a generic test to verify whether Dense Neural Network (DNN) models automatically released by your team have a sufficient number of parameters to learn the task for which they were built. What should you do?
~ Your team is using a TensorFlow Inception-v3 CNN model pretrained on ImageNet for an image classification prediction challenge on 10,000 images. You will use AI Platform to perform the model training. What TensorFlow distribution strategy and AI Platform training job configuration should you use to train the model and optimize for wall-clock time?
~ You work on a team where the process for deploying a model into production starts with data scientists training different versions of models in a Kubeflow pipeline. The workflow then stores the new model artifact into the corresponding Cloud Storage bucket. You need to build the next steps of the pipeline after the submitted model is ready to be tested and deployed in production on AI Platform. How should you configure the architecture before deploying the model to production?
~ You work for a maintenance company and have built and trained a deep learning model that identifies defects based on thermal images of underground electric cables. Your dataset contains 10,000 images, 100 of which contain visible defects. How should you evaluate the performance of the model on a test dataset?
~ You are an ML engineer at a media company. You want to use machine learning to analyze video content, identify objects, and alert users if there is inappropriate content. Which Google Cloud products should you use to build this project?
~ You work for a large retailer. You want to use ML to forecast future sales leveraging 10 years of historical sales data. The historical data is stored in Cloud Storage in Avro format. You want to rapidly
~ You need to build an object detection model for a small startup company to identify if and where the companys logo appears in an image. You were given a large repository of images, some with logos and some without. These images are not yet labelled. You need to label these pictures, and then train and deploy the model. What should you do?
~ You work for a large financial institution that is planning to use Dialogflow to create a chatbot for the companys mobile app. You have reviewed old chat

logs and tagged each conversation for intent based on each customers stated intention for contacting customer service. About 70% of customer inquiries are simple requests that are solved within 10 intents. The remaining 30% of inquiries require much longer and more complicated requests. Which intents should you automate first?

~ You work for a gaming company that develops and manages a popular massively multiplayer online (MMO) game. The games environment is open-ended, and a large number of positions and moves can be taken by a player. Your team has developed an ML model with TensorFlow that predicts the next move of each player. Edge deployment is not possible, but low-latency serving is required. How should you configure the deployment?

~ You should feed your machine learning model your ____ not _____. It will learn those for itself.

~ You are building an ML model to detect anomalies in real-time sensor data. You will use Pub/Sub to handle incoming requests. You want to store the results for analytics and visualization. How should you configure the pipeline?

~ Your company manages a video sharing website where users can watch and upload videos. You need to create an ML model to predict which newly uploaded videos will be the most popular so that those videos can be prioritized on your companys website. Which result should you use to determine whether the model is successful?

~ You are working on a Neural Network-based project. The dataset provided to you has columns with different ranges. While preparing the data for model training, you discover that gradient optimization is having difficulty moving weights to a good solution. What should you do?

~ Your data science team needs to rapidly experiment with various features, model architectures, and hyperparameters. They need to track the accuracy metrics for various experiments and use an API to query the metrics over time. What should they use to track and report their experiments while minimizing manual effort?

~ You work for a bank and are building a random forest model for fraud detection. You have a dataset that includes transactions, of which 1% are identified as fraudulent. Which data transformation strategy would likely improve the performance of your classifier?

~ Your team is working on an NLP research project to predict political affiliation of authors based on articles they have written. You have a large training dataset that is structured like this: You followed the standard 80%-10%-10% data distribution across the training, testing, and evaluation subsets. How should you distribute the training examples across the train-test-eval subsets while maintaining the 80-10-10 proportion?

~ Your team has been tasked with creating an ML solution in Google Cloud to classify support requests for one of your platforms. You analyzed the requirements and decided to use TensorFlow to build the classifier so that you have full control of the models code, serving, and deployment. You will use Kubeflow pipelines for the ML platform. To save time, you want to build on existing resources and use managed services instead of building a completely new model. How should you build the classifier?

~ You recently joined a machine learning team that will soon release a new project. As a lead on the project, you are asked to determine the production readiness of the ML components. The team has already tested features and data, model development, and infrastructure. Which additional readiness check should you recommend to the team?

~ You work for a credit card company and have been asked to create a custom fraud detection model based on historical data using AutoML Tables. You need to prioritize detection of fraudulent transactions while minimizing false positives. Which optimization objective should you use when training the model?

~ You work for an online travel agency that also sells advertising placements on its website to other companies. You have been asked to predict the most relevant web banner that a user should see next. Security is important to your company. The model latency requirements are 300ms@p99, the inventory is thousands of web banners, and your exploratory analysis has shown that navigation context is a good predictor. You want to implement the simplest solution. How should you configure the prediction pipeline?

~ Your team is building a convolutional neural network (CNN)-based architecture from scratch. The preliminary experiments running on your on-premises CPU-only infrastructure were encouraging, but have slow convergence. You have been asked to speed up model training to reduce time-to-market. You want to experiment with virtual machines (VMs) on Google Cloud to leverage more powerful hardware. Your code does not include any manual device placement and has not been wrapped in Estimator model-level abstraction. Which environment should you train your model on?

AI Operations

Topic Name : DATA SCIENCE

Sub-topic Name : MLOPS

Course link : <https://ineuron.ai/course/AI-Operations>

Course Description :-

Artificial Intelligence Operations (AIOps) is the most in demand technical skill these days. It helps to incorporate DevOps principle in AI product development. It's a live instructor-led certification program provided by iNeuron intelligence private limited. Here you will learn various methods to implement AIOps methodology in the ML and DL projects which includes implementation on various clouds like AWS, Azure, GCP and DigitalOcean.

Course Features :-

- => AIOps certification
- => Online Instructor-led learning: Live teaching by instructors
- => Hands-on project implementation
- => 120+ hours of live interactive classes
- => Every week doubt clearing session after the live classes
- => Lifetime Dashboard access
- => Doubt clearing session
- => Doubt clearing through e-mail
- => Assignments in all the module
- => Resume building
- => Career guidance
- => Interview Preparation
- => Regular assessment
- => Live class recordings and materials
- => Interview Questions

What you will learn :-

- => AIOps
- => Linux foundation
- => GIT foundation
- => GitHub
- => Gitlab
- => Data version control DVC
- => MLFlow
- => Docker foundation
- => Kubernetes Foundation
- => Tensorflow Extend (TFX)
- => Kubeflow
- => AWS AIOps
- => Azure AIOps
- => GCP AIOps
- => Digital Ocean

Requirements :-

- => Minimum System requirement: Intel Core i3 processor and 4GB RAM or higher
- => Decent internet connection
- => Your Dedication

Instructors :-

- => Sunny Bhavleen Chandra :

~ Sr. Data Scientist and lecturer at iNeuron.ai with working experience in computer vision, natural language processing and embedded systems. Hands-on experience leveraging machine learning, deep learning, transfer learning models to solve challenging business problems. Also, he has a vast interest in Robotics.

Curriculum details :-

=> Introduction to AI Ops

=> Linux Foundation :

- ~ Why Linux? Linux types? How to access Linux env in different system
- ~ Installation of virtual box, WSL, sandbox for windows user
- ~ Free tier EC2 ubuntu instance
- ~ SSH and SSH tools
- ~ Putty
- ~ Filezilla
- ~ WinSCP
- ~ Course Introduction
- ~ Working with the Shell - I
- ~ Introduction to Shell
- ~ Basic Linux Commands: ls, cat, cd, rm, chmod...etc
- ~ Help for command line
- ~ Type of Shell: bash, zsh etc
- ~ Bash Shell
- ~ Linux Core Concepts
- ~ Linux Kernel and types
- ~ Linux file system
- ~ Linux Boot Sequence
- ~ Runlevels
- ~ File Types
- ~ Filesystem Hierarchy
- ~ Package Management
- ~ Package Management Introduction and configuration
- ~ Linux type based package manager
- ~ RPM and YUM
- ~ DPKG and APT
- ~ Working with the Shell - II
- ~ File Compression and Archival
- ~ Searching for Files and Patterns using grep/wildcards etc
- ~ VI, Nano Editor
- ~ Security and File Permissions
- ~ The Security Incident (story)
- ~ Linux Accounts
- ~ User Management
- ~ Access Control Files
- ~ Account Management
- ~ File Permissions and Ownership
- ~ Cronjobs
- ~ Service management with systemd
- ~ Working overtime (story)
- ~ Creating a systemd Service
- ~ systemd Tools
- ~ Lab - systemd services

=> GIT Foundation :

- ~ What? Why? When? Type? Vendor? Pricing? Industry wise uses of GIT
- ~ Creation of Github/Gitlab/bitbucket account
- ~ Local GitHub UI installation, setup with VSCode and Pycharm
- ~ Local and Remote Repositories installation and configuration
- ~ GIT Repository initialization
- ~ command: git log
- ~ Git Branches
- ~ What is branching in Git and why we need it?
- ~ Master/main branch and user-defined branch
- ~ Checkout and pushing to a branch
- ~ Merging of branches
- ~ Project control and management
- ~ In Remote Repositories
- ~ Initialization of Remote Repositories
- ~ Pushing code to the remote repositories
- ~ Cloning of the remote repositories to local
- ~ PR (Pull Requests)
- ~ Fetch and Pull
- ~ Handling conflict on merging branch
- ~ Forking of repository
- ~ Rebasing
- ~ Resetting and Reverting
- ~ Stashing

=> Data Version Control (DVC) :

- ~ DVC
- ~ What is DVC?
- ~ Installation
- ~ Mac OS
- ~ Windows
- ~ Linux
- ~ Get Started
- ~ Data Versioning
- ~ Model Versioning
- ~ Data Access
- ~ Model Access
- ~ Data Pipelines
- ~ Metrics, Parameters, Plots
- ~ Run, Queue, Compare, Persisting, and Sharing Experiments

- ~ Clean up
- ~ DVC Uses
- ~ Versioning Data and Models
- ~ Sharing Data and Model Files
- ~ Data Registries
- ~ Shared Development Server
- ~ Project Structure
- ~ Experiment Management
- ~ Setup Google Drive Remote
- ~ Large Dataset Optimization
- ~ External Dependencies
- ~ Managing External Data
- ~ Automate Pipelines with DVC
- ~ Pipelines & Experiment Automation
- ~ Common issues with ML experiments
- ~ Build automated pipelines
- ~ Build automated pipeline
- ~ Experiments Management
- ~ Experimenting with reproducible pipelines
- ~ Tracking metrics and plots
- ~ Compare experiment results
- ~ Build, Test & Deploy
- ~ Introduction to CI/CD in Machine Learning
- ~ Build CI/CD pipeline
- ~ Install GitLab Runner and Trigger CI/CD pipeline
- ~ Build Machine Learning pipeline
- ~ Build CI/CD pipeline
- ~ Trigger CI/CD pipeline
- ~ Making Continuous Integration work with ML
- ~ DVC Integration with Project
- ~ Build a model Prototype
- ~ Build a prototype with Jupyter Notebook
- ~ Start to version your code with Git
- ~ Version your code with Git
- ~ Create pipelines
- ~ Automate pipelines and data versioning with DVC
- ~ Create CI pipeline to build, test, experiment
- ~ Experimenting with DVC and CML
- ~ Deploy your model

=> MLFlow :

- ~ What is MLFlow?
- ~ Installation
- ~ MLflow Tracking
- ~ Where Runs Are Recorded
- ~ How Runs and Artifacts are Recorded
- ~ Scenario 1: MLFlow on localhost
- ~ Scenario 2: MLFlow on localhost with SQLite
- ~ Scenario 3: MLFlow on localhost with Tracking Server
- ~ Scenario 4: MLFlow with remote Tracking Server, backend and artifact stores
- ~ Logging Data to Runs
- ~ Logging Functions
- ~ Launching Multiple Runs in One Program
- ~ Performance Tracking with Metrics
- ~ Visualizing Metrics
- ~ Automatic Logging
- ~ Scikit-learn
- ~ TensorFlow and Keras
- ~ Gluon
- ~ XGBoost
- ~ Pytorch
- ~ MLFlow Tracker
- ~ Organizing Runs in Experiments
- ~ Managing Experiments and Runs with the Tracking Service API
- ~ Tracking UI
- ~ Querying Runs Programmatically
- ~ MLFlow Tracking Servers
- ~ Storage
- ~ Networking
- ~ Logging to a Tracking Server
- ~ MLflow Projects
- ~ Overview
- ~ Specifying Projects
- ~ Running Projects
- ~ Iterating Quickly
- ~ Building Multi Step Workflows
- ~ MLFlow Models
- ~ Storage Format
- ~ Model Signature And Input Example
- ~ Model API
- ~ Built-In Model Flavors
- ~ Model Customization
- ~ Built-In Deployment Tools
- ~ Deployment to Custom Targets
- ~ Model Registry
- ~ Model Registry Workflows
- ~ UI Workflow
- ~ Registering a Model
- ~ Using the Model Registry

- ~ API Workflow
- ~ Adding an MLFlow Model to the Model Registry
- ~ Fetching an MLFlow Model from the Model Registry
- ~ Serving an MLFlow Model from Model Registry
- ~ Adding or Updating an MLFlow Model Descriptions
- ~ Renaming an MLFlow Model
- ~ Transitioning an MLFlow Models Stage
- ~ Listing and Searching MLFlow Models
- ~ Archiving an MLFlow Model
- ~ Deleting MLFlow Models

=> Docker Foundation :

- ~ Setup
- ~ Why? What? Where? Problem it can solve? Docker types? Cloud based docker containers
- ~ Installation of specific docker editions based on your system
- ~ Installing Docker
- ~ Create and Use
- ~ Docker Install, Configuration and verify
- ~ Container VS
- ~ Windows Containers unlike Linux
- ~ Inside Containers - Process Monitoring with Command Line Interface(CLI)
- ~ Private and Public Communication in Containers
- ~ CLI Management of Virtual Networks
- ~ Domain Name System(DNS) for Containers can find each other
- ~ Containers
- ~ Docker Image
- ~ Docker Hub Registry predefined Images
- ~ Images and Their Layers: Discover the Image Cache
- ~ Image Tagging and Pushing to Docker Hub
- ~ Create images
- ~ Using Dockerfile Basics
- ~ Run Docker Builds
- ~ Extend Official Images
- ~ Container Lifetime & Persistent Data
- ~ Persistent Data: Data Volumes
- ~ Shell Differences for Path Expansion
- ~ Persistent Data: Bind Mounting
- ~ Docker Compose
- ~ What is Docker Compose ?
- ~ Docker-compose.yml
- ~ Compose Commands
- ~ Add Image Building to Compose Files
- ~ docker project: Deploy ML model and services using Docker

=> Kubernetes Foundation

=> TFX

=> Kubeflow :

- ~ What is Kubeflow?
- ~ Core Kubeflow components
- ~ How to set up Kubeflow on Kubernetes
- ~ How to develop basic ML models in Kubeflow Notebooks
- ~ How to train and deploy models in Kubeflow
- ~ How to use Kubeflow Pipelines
- ~ How to use KFServing to deploy models
- ~ How to manage logs with Kubeflow Metadata component
- ~ Katib Hyper Parameter Tuning
- ~ Kubeflow Pipelines to KFServing

=> GitLab Foundation :

- ~ GitLab Triggers
- ~ AWS S3 storage
- ~ GitLab CI/CD Pipelines
- ~ Pipelines definition
- ~ MongoDB cloud Atlas
- ~ Heroku
- ~ Logdata
- ~ Coral for Monitoring

=> AWS MLOps :

- ~ Amazon Sagemaker
- ~ Amazon s3
- ~ AWS Codebuild
- ~ AWS Codecommit
- ~ Sagemaker Training Job
- ~ Sage Maker Endpoint
- ~ Amazon Api Gateway
- ~ Sagemake Model Monitoring
- ~ Cloudwatch Synthetics
- ~ Cloudwatch Alarm

=> Azure MLOps :

- ~ Create an Azure Machine Learning workspace
- ~ Setup a new project in Azure DevOps
- ~ Import existing YAML pipeline to Azure DevOps
- ~ Declare variables for CI/CD pipeline
- ~ Create training compute
- ~ Train ML model
- ~ Register model
- ~ Deploy model in AKS

=> GCP MLOps :

- ~ *Creating Flask application using Python*
- ~ *Best practices building Flask App*
- ~ *Understanding Docker files and Dependencies*
- ~ *Creating container image*
- ~ *Walkthrough of different deployment options*
- ~ *Serverless deep dive*
- ~ *Deploying on GCP App Engine*
- ~ *Deploying on Serverless Framework*
- ~ *Hosted Kubeflow Pipelines*
- ~ *Start Hosted Pipelines*
- ~ *cluster permissions*
- ~ *Development environment*
- ~ *Launch AI Platform notebook*
- ~ *CI/CD Production Environment*
- ~ *Set up Continuous Integration (CI)*
- ~ *Verify CD*

=> Digital Ocean :

- ~ *Droplets*
- ~ *File Transfers*
- ~ *Gitops*
- ~ *Jenkins*
- ~ *Creating Jobs*
- ~ *Creating pipelines in Jenkins*
- ~ *Docker Images*
- ~ *Kubernetes Flow*
- ~ *Creating Clusters*
- ~ *Load testing*

Programming in Python

Topic Name : DATA SCIENCE

Sub-topic Name : PYTHON

Course link : <https://ineuron.ai/course/Programming-in-Python>

Course Description :-

This course will teach you the fundamentals of Python Programming. Python is an easy-to-learn programming language that allows you to get started in programming without having any prior programming experience. This course is designed for Beginners who have never coded before, as well as experienced student programmers who wish to learn Python to expand their career choices.

Course Features :-

- => Online Instructor-led learning
- => Practical Implementation
- => Integrate academic knowledge with the tech
- => Real-time Project
- => Live Class Recording
- => Doubt Clearing
- => Assignment in all the Module
- => Quiz in every Module
- => Career Counselling
- => Completion Certificate

What you will learn :-

- => Introduction to Python programming language
- => Features of python
- => Application of python
- => Integrated development environment
- => Introduction to python variables
- => Introduction to Data types
- => Introduction to python operators and Strings
- => Python Programs

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Shubham Sharma :

~ Having 3+ years of DataScience and Web Development expertise, proficient in data modelling, data preprocessing as well as scripting languages Python and PHP. I've also worked as a mentor and a freelancer. Machine Learning and Natural Language Processing (NLP) are two of my areas of expertise.

Curriculum details :-

=> Introduction to Python :

- ~ What is Python?
- ~ History of Python
- ~ Features of Python
- ~ Applications of Python
- ~ Why should you learn python?

=> System Setup :

- ~ Colab

=> Python Basics :

- ~ What is IDE?
- ~ Why IDE is used?
- ~ Advantages of using an IDE
- ~ Offline editor(Python IDE)
- ~ Online editor (<https://www.onlinegdb.com/>) Linux distribution
- ~ Execute your first python program (print Hello world)
- ~ Python Indentation
- ~ Comments & Statements
- ~ Keywords & Identifiers

~ Types of errors In Python

=> Python Variables :

- ~ What is Variables?
- ~ Creating Variables
- ~ Rules for creating variables
- ~ Type function
- ~ Type Casting
- ~ Single Variable Name & Multi Variable Name
- ~ Unpack collections
- ~ Changing values of variable
- ~ Deleting variable
- ~ Practical:- Print book names using variables

=> Data Types :

- ~ What are Data Types?
- ~ Numeric data type
- ~ Sequence data type
- ~ Boolean data type
- ~ Set
- ~ Dictionary
- ~ Practical :- Creating a Hash table for students details

=> Python Operators :

- ~ Relational Operators
- ~ Relational Operators with Strings
- ~ Chaining of Relational Operators
- ~ Logical Operators
- ~ Special behaviour of == and !=, ===
- ~ How logical operators work with boolean types?
- ~ How logical operators work with Non-Boolean types?
- ~ Introduction to Bitwise Operators
- ~ Six types of Bitwise Operators
- ~ Assignment Operators
- ~ Various types of assignment operators
- ~ Compound Operators
- ~ Identity Operators
- ~ Membership Operators
- ~ Precedence and Associativity
- ~ Boolean Operators

=> Python Strings :

- ~ Defined a Single line string
- ~ Defined a Multiple Line string
- ~ Slicing
- ~ Modify String
- ~ String Concatenation
- ~ String Formatting
- ~ Escape Character
- ~ String Methods

=> Python Programs :

- ~ How to print Palindrome Number ?
- ~ Reverse a String
- ~ Count Vowels in a given string
- ~ Counts words in a given string
- ~ Fibonacci series
- ~ Armstrong number
- ~ Find the number of Prime numbers present in the list of integers.
- ~ Leap year
- ~ Wish a marriage anniversary to your mom dad using Python / Greetings messages.

Bash Scripting

Topic Name : PROGRAMMING

Sub-topic Name : SHELL SCRIPTING

Course link : <https://ineuron.ai/course/Bash-Scripting>

Course Description :-

This course teaches you how to automate processes on UNIX systems using shell scripts. On a UNIX system, bash shell scripts allow you to automate almost any task. They combine all of the UNIX userland utilities with a robust scripting language. Shell scripts will increase your productivity whether you're a system administrator, a developer, or a power user.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Unique Characters
- => Characters Hash SemiColon
- => Variable and Parameters
- => Internal Commands
- => Regular Expressions

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Ermin Kreponic :

~ Strongly motivated young IT expert, Linux enthusiast with a passion for troubleshooting network related problems. With an exceptional eye for details and a sense of urgency when it comes down to problem solving.

Curriculum details :-

=> Introduction :

~ Intro

=> Setting up the environment :

~ Set up part 1

~ Set up part 2

=> Unique Characters :

~ Terminal customization and hash character

~ Characters Hash SemiColon

~ Characters Dot Double quotes Single quotes Comma Double comma

~ Backslash Slash Backquote Null command

~ [exclamation mark] [asterix] [question mark]

~ Parenthesis and Curly braces

~ Characters [OR] [AND] [Dash] [Modulo] [Tilde Plus] [Tilde Minus] [Caret] [Double Caret]

=> Variable and Parameters :

~ Variables and Parameters part 1

~ Variables and Parameters part 2

~ Variables and Parameters part 3

~ Variables and Parameters part 4

=> Return Values :

~ Return Values part 1

~ Return Values part 2

=> Conditional Statements :

~ Conditional Statements part 1

~ Conditional Statements part 2

=> Variables Continued :

~ Built in variables part 1

~ Built in variables part 2

- ~ *Built in variables part 3*
- ~ *Modifying the properties of variables*
- ~ *Random number generation*

=> Loops :

- ~ *For Loop*
- ~ *Until Loop*
- ~ *While Loop*
- ~ *Break and Continue Part 1*
- ~ *Break and Continue Part 2*
- ~ *Case Construct*
- ~ *Select Construct*

=> Internal Commands :

- ~ *Printf*
- ~ *Read*
- ~ *Eval and Set*
- ~ *More on set + unset*
- ~ *getopts*
- ~ *shopt type jobs disown*
- ~ *fg kill and command*

=> Regular Expressions :

- ~ *Grep Demo*
- ~ *Demo for sed Extended regular expressions*
- ~ *Globing*

=> Input Output Redirection :

- ~ *STDOUT, STDIN, STDERR part 1*
- ~ *STDOUT, STDIN, STDERR part 2*

=> Functions :

- ~ *Functions part 1*
- ~ *Functions part 2*

=> Arrays :

- ~ *Arrays part 1*
- ~ *Arrays part 2*
- ~ *Arrays part 3*

=> Lists :

- ~ *OR and AND lists*

=> Debugging :

- ~ *Debugging part 1*
- ~ *Debugging part 2*
- ~ *Debugging part 3*

Kubernetes

Topic Name : DEVOPS

Sub-topic Name : KUBERNETES

Course link : <https://ineuron.ai/course/Kubernetes>

Course Description :-

Kubernetes is a toolkit for automating the deployment, scaling and running of containerized applications in production. This course is to teach you how to manage a containerized application infrastructure. This includes both current IT administrators and individuals interested in pursuing a cloud career.

Course Features :-

- => Complete understanding of kubernetes
- => Downloadable resources
- => Quizzes
- => Completion certificate

What you will learn :-

- => Kubernetes Overview
- => Deploying Kubernetes
- => Kubernetes Architecture
- => Deploying Containerized Apps
- => Pods
- => Services
- => Multi-Container Pods

Requirements :-

- => Prior Knowledge of Linux, Docker and Git
- => A system with a good internet connection
- => Your Dedication

Instructors :-

=> Ritesh Yadav :

~ Ritesh is truly passionate about data science, machine learning and DevOps in general, he likes what he does, and is keen to learn. Currently, He is working as a Jr. Data Scientist at Ineuron.ai. He also loves to Contribute to Open Source Projects, which are mainly under CNCF Landscape. Ritesh loves to work in Cloud-Native technologies and Golang (Go). Apart from this, Ritesh has been actively involved in the open-source community for over a year, helping many open-source DevOps tools and CNCF Projects like Porter, Meshery, Keptn, TensorFlow, and Thanos through his contributions.

Curriculum details :-

=> What is Kubernetes? :

- ~ What is Kubernetes? Preview
- ~ Introduction to Kubernetes
- ~ Kubernetes History
- ~ Kubernetes Architecture Preview
- ~ Kubernetes Architecture - In-depth

=> Provisioning Infrastructure :

- ~ Provisioning Kubernetes Infrastructure on AWS
- ~ Provisioning Kubernetes Infrastructure on GCP
- ~ Installing Kubernetes using kubeadm
- ~ Setting up K8 using kubeadm

=> Installing kubectl and minikube :

- ~ What is minikube? Preview
- ~ What is kubectl?
- ~ Install minikube and kubectl

=> Installing Kubernetes Using microk8s :

- ~ Setting up K8 using microk8s

=> Installing Kubernetes Using K3s :

- ~ Setting up K8's using K3's

=> Kubernetes Components :

- ~ Node & Pod
- ~ Service & Ingress
- ~ ConfigMap & Secret
- ~ Volumes
- ~ Deployment & StatefulSet

=> Create and start a minikube cluster in the local environment Kubernetes CLI :

- ~ *Commands with Example (kubectl)*
- ~ *Create a pod/deployment*
- ~ *Change the pod/deployment configuration*
- ~ *Debugging pods*
- ~ *Delete pod/deployment*
- ~ *Kubernetes YAML Configuration*
- ~ *Different attributes of a Kubernetes config file*
- ~ *Creating config files*

=> Kubernetes Namespace :

- ~ *What is a Namespace?*
- ~ *4 Default Namespaces*
- ~ *Create a Namespace and resources*
- ~ *Why use Namespaces?*

=> Kubernetes Healthchecks :

- ~ *What is Ingress?*
- ~ *Creating YAML Config Files for Ingress*
- ~ *How to configure Ingress in your cluster?*
- ~ *What is Ingress Controller?*
- ~ *Demo: Configure Ingress in Minikube*
- ~ *Ingress Config based on Paths*
- ~ *Ingress Config based on Domain and Subdomain*

=> Statefulset in Kubernetes :

- ~ *What is StatefulSet?*
- ~ *Deployment of Stateful and Stateless Application*
- ~ *Deployment vs StatefulSet*
- ~ *Pod Identity*
- ~ *Scaling database applications: Master and Worker Pods*

=> Kubernetes Services :

- ~ *What is a Service?*
- ~ *ClusterIP Services*
- ~ *Headless Services*
- ~ *NodePort Services*
- ~ *LoadBalancer Services*

=> Volumes in Kubernetes :

- ~ *Persistent Volume (PV)*
- ~ *Persistent Volume Claim (PVC)*
- ~ *Storage Class (SC)*

=> Deploying Microservices App to Kubernetes Cluster :

- ~ *Microservice Overview*
- ~ *Adding Dockerfile and Dockerfile Plugins*
- ~ *Adding configurations for Service Registry*
- ~ *Creating Kubernetes Config files (YAML)*
- ~ *Implementing API Gateway*
- ~ *Deploying applications to Kubernetes Cluster*
- ~ *Scaling Application*
- ~ *Kubernetes Dashboard*
- ~ *Deleting resources from Kubernetes Cluster*

Deep Learning Foundations

Topic Name : DATA SCIENCE

Sub-topic Name : DEEP LEARNING

Course link : <https://ineuron.ai/course/Deep-Learning-Foundations>

Course Description :-

Deep Learning is a subfield of machine learning concerned with algorithms inspired by the structure and function of the brain called artificial neural networks. It is a function that imitates the workings of the human brain in processing data and creating patterns for use in decision making. Learn Deep Learning, Transfer Learning and Neural Networks using the latest frameworks. Become a Deep Learning Guru!

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Foundations of Deep Learning
- => Artificial Neural Networks
- => Convolution Neural networks
- => Natural Language Processing
- => RNN
- => LSTM

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> krish naik :

~ Having 10+ years of experience in Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

=> Foundations of Deep Learning :

- ~ Introduction to Deep Learning
- ~ Why Deep Learning?
- ~ Difference between Machine learning & Deep Learning
- ~ Basic's of Deep learning

=> Artificial Neural Networks :

- ~ Neural Network Foundations
- ~ Forward propagation
- ~ Backward Propagation
- ~ Weight Initialization
- ~ Loss Function and Gradient Descent
- ~ Activation Function
- ~ Optimizers
- ~ Artificial Neural networks

=> Convolution Neural networks :

- ~ CNN vs ANN
- ~ Convolutional Neural Network
- ~ Filters
- ~ Channels/Feature Maps
- ~ Padding
- ~ Receptive Fields
- ~ Practical demonstration

Foundations of English Language

Topic Name : K12

Sub-topic Name : CLASS6

Course link : <https://ineuron.ai/course/Foundations-of-English-Language>

Course Description :-

This course has been designed for learners of all ages, who would like to enhance their grammar and writing abilities to prepare for a high-school, college, or job-related English assessment, as well as anyone who would like to update & strengthen the grammar and writing skills. Listening, speaking, reading, writing, grammar, and vocabulary all will improve as a result of this course. The skills are often blended together, even if they are not always taught individually. It will help you improve your speaking proficiency and polish your speaking as well as writing skills, which are essential for academic and professional success.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Significance of English Language
- => The Sentence
- => Parts of Speech
- => Subject Verb Agreement
- => Tenses
- => Vowels, Consonants and Articles
- => Punctuation marks
- => Suffix and Prefix
- => Sentence Structure
- => Active and Passive Voice
- => Direct and Indirect Speech
- => Reading comprehension
- => Odd one out
- => Figures of Speech

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Dr Nishtha Jain :

~ I am a doctor by profession but a teacher by passion. I have been into the teaching profession for the last 3 years. I have been and am still a mentor for various courses which include technical as well as non-technical ones. These include MS-Excel, Tableau, Computer basics, Biology, English, etc. I love to learn, explore and share my knowledge to whatever extent possible. Being an ardent educator, I have always helped all my students and will continue to do the same.

Curriculum details :-

- => Significance of English Language :
 - ~ English Language
- => The Sentence :
 - ~ Types of Sentences
 - ~ Examples
 - ~ Subject, Predicate and Object with Examples
- => Parts of Speech :
 - ~ Nouns and types of Nouns with Examples
 - ~ Pronouns and types of Pronouns with Examples

- ~ *Verbs and types of Verbs with Examples*
- ~ *Adverbs and types of Adverbs with Examples*
- ~ *Adjective and types of Pronouns with Examples*
- ~ *Preposition and types of Pronouns with Examples*
- ~ *Conjunction and types of Pronouns with Examples*
- ~ *Interjection and types of Pronouns with Examples*

=> Subject Verb Agreement :

- ~ *Basic Rules*
- ~ *Examples*
- ~ *Exceptions to basic rules*

=> Tenses :

- ~ *Present tense and its types*
- ~ *Past tense and its types*
- ~ *Future tense and its types*

=> Vowels, Consonants and Articles :

- ~ *Sounds*
- ~ *Teams*
- ~ *Rules*
- ~ *Examples*

=> Punctuation marks :

- ~ *Question mark*
- ~ *Full stop*
- ~ *Exclamation mark*
- ~ *Hyphen*
- ~ *Dash*
- ~ *Comma*
- ~ *Colon*
- ~ *Semi-colon*
- ~ *Parenthesis*
- ~ *Brackets*
- ~ *Braces*
- ~ *Apostrophe*
- ~ *Ellipsis*

=> Suffix and Prefix :

- ~ *Meanings*
- ~ *Examples*

=> Sentence Structure :

- ~ *Simple Sentence*
- ~ *Complex Sentence*
- ~ *Compound Sentence*
- ~ *Complex-Compound Sentence*
- ~ *Examples*

=> Active and Passive Voice :

- ~ *Active and Passive Voice*

=> Direct and Indirect Speech :

- ~ *Direct and Indirect Speech*

=> Reading comprehension :

- ~ *Reading comprehension*

=> Odd one out :

- ~ *Odd one out*

=> Figures of Speech :

- ~ *Figures of Speech*

Mega Project Foundation

Topic Name : DATA SCIENCE

Sub-topic Name : MACHINE LEARNING INTERVIEW

Course link : <https://ineuron.ai/course/Mega-Project-Foundation>

Course Description :-

iNeuron is known for conducting end to end community sessions where we discuss everything related to tech along with projects and many more things. The objective of conducting these community sessions is to learn and grow together.

Course Features :-

=> Free for all

What you will learn :-

=> Statistics

=> Blockchain

=> Android

=> DSA

=> DevOPS

=> Python

=> PowerBI

=> SQL

=> Projects

=> Drone

=> Robotics

=> AI in edge devices

Requirements :-

=> Your dedication

=> Laptop

Instructors :-

=> krish naik :

~ Having 10+ years of experience in Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

=> Statistics :

~ Statistics Day 1 Preview

~ Statistics Day 2 Preview

~ Statistics Day 3

~ Statistics Day 5

~ Statistics Day 6

~ Statistics Day 7

Data Visualization using Matplotlib

Topic Name : K12

Sub-topic Name : CLASS9

Course link : <https://ineuron.ai/course/Data-Visualization-using-Matplotlib>

Course Description :-

In this course, you will learn Data visualization using the matplotlib library. Hands-on practical oriented course in which you will learn various plots such as Bar graphs, Pie charts, Line charts, Scatter plots, histograms. After completion of this course, you will be able to visualize the data and find the underlying pattern.

Course Features :-

- => Online Instructor-led learning
- => Practical Implementation
- => Integrate academic knowledge with the tech
- => Real-time Project
- => Live Class Recording
- => Doubt Clearing
- => Assignment in all the Module
- => Quiz in every Module
- => Career Counselling
- => Completion Certificate

What you will learn :-

- => Introduction to matplotlib
- => Data visualization
- => Visual Analysis
- => Different types of Chart using Matplotlib

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Curriculum details :-

- => Introduction to the course :
 - ~ Course Introduction
 - ~ Who is this course for?
 - ~ Course overview and course outcome
 - ~ Course Pre-requisites
 - ~ Overview of Python
 - ~ What are Graphs?
 - ~ What can we depict from graphs?
 - ~ What are the different types of graphs?
 - ~ What is Matplotlib?
 - ~ Why is Matplotlib used?
- => Installation of Matplotlib :
 - ~ Installing in Google Colab
- => Different Types of Plot :
 - ~ What is a Bar graph?
 - ~ What can we understand from the Bar graph?
 - ~ Apply Bar graph on chess dataset
- => Assignment 1 :
 - ~ Apply Bar graph on your own datasets and write down your observations from it.
- => Different Types of Plot :
 - ~ What is a Pie chart?
 - ~ What can we understand from the Pie chart?
 - ~ Applying Pie chart on chess dataset
 - ~ What is a Box plot?
 - ~ What can we understand from the Box plot?
 - ~ Applying Box plot on chess dataset
 - ~ What is a line chart?
 - ~ What can we understand from the line chart?
 - ~ Applying line charts on Chess dataset
 - ~ What is a Scatter plot?

- ~ What can we understand from the Scatter plot?
- ~ Applying Scatter plot on chess dataset
- ~ What is Histogram?
- ~ What can we understand from the Histogram?
- ~ Applying Histogram on chess dataset

=> Assignment 2 :

- ~ Apply Pie chart on your own datasets and write down your observations from it.

=> Assignment 3 :

- ~ Apply Box plot on your own datasets and write down your observations from it.

=> Assignment 4 :

- ~ Apply line chart on your own datasets and write down your observations from it.

=> Assignment 5 :

- ~ Apply Scatter plot on your own datasets and write down your observations from it.

=> Assignment 6 :

- ~ Apply Histogram on your own datasets and write down your observations from it.

=> Project :

- ~ Using matplotlib analyze geographical datasets and write down your observations from them.

=> Assignment 7 :

- ~ Using matplotlib analyze historical datasets and write down your observations

=> Course Summary :

- ~ Course outro
- ~ Future learning Path

Digital Marketing Foundation

Topic Name : DIGITAL MARKETING

Sub-topic Name : DIGITAL MARKETING MASTERS

Course link : <https://ineuron.ai/course/Digital-Marketing-Foundation>

Course Description :-

Grow your digital marketing results faster through the power of growth hacking! In this industry-leading course, you'll discover the extraordinary benefits of digital metrics, including lean analytics, web traffic, digital conversion funnels, and LTV and CAC calculations.

Course Features :-

- => Course for pre launch business owners who have no idea where to get started
- => For starting a freelancing techniques in Marketing field

What you will learn :-

- => From Scratch grow business online
- => Work from home as a Freelancer Marketer
- => Make money as an Affiliate Marketer

Requirements :-

- => No Experience required
- => Computer with Internet connectivity
- => Basic Programming understanding

Curriculum details :-

- => Digital Marketing Class 1 - Introduction to Digital Marketing :
~ Introduction Preview
- => Digital Marketing Class 2 - Basics of Websites, Selecting Domain, and Activating Free Hosting
- => Digital Marketing Class 3 - Plugins and Integrations (Part - 1)
- => Digital Marketing Class 4 - Plugins and Integrations (Part - 2)
- => Digital Marketing Third Party Website Integrations Google and Bing
- => Digital Marketing - Market Research - With No Tools
- => Digital Marketing 6.2 - Market Research - No Tools
- => Digital Marketing Class 7.1 - Introduction to SEO and Basic Research
- => Digital Marketing Class 7.2 - Research With Free Tools - Google Trends
- => Digital Marketing 8 1 Free Tool
- => Digital Marketing Class 8.2 - Paid Tools
- => Digital Marketing Class 9.1 - Intro to Google Analytics
- => Digital Marketing Class 9.2 - All Tabs of Google Analytics
- => Digital Marketing Class 10.1 - Goals, Reports, Dashboard
- => Digital Marketing Class 10.2 - Search Console
- => Digital Marketing Class 11.1 - Website Optimization Tools
- => Digital Marketing Class 11.2 - Email Marketing
- => Digital Marketing Conclusion

Power BI Projects

Topic Name : DATA ANALYTICS

Sub-topic Name : POWER BI PROJECTS

Course link : <https://ineuron.ai/course/Power-BI-Projects>

Course Description :-

This course aims to make you aware of the project on a real scenario basis. Solve real-world business challenges using reports, visualizations, and other analytics tools that allow you to gather and exchange data from diverse domains.

Course Features :-

- => Roadmap
- => Quizzes
- => Assignment
- => Downloadable resources
- => Completion certificate

What you will learn :-

- => Gain knowledge from end-to-end project reports in PowerBI
- => Industry-level experience
- => Power pivots, slicers, power view, data analysis expressions

Requirements :-

- => Prior knowledge of PowerBI tool
- => A system with internet connection
- => Microsoft power BI desktop account
- => Dedication

Instructors :-

=> Khushali Shah :

~ A data scientist having rich experience working with MNCs and start-ups in the field of data science and machine learning. She has expertise in Chatbot development for various domains & been developing professionally for 6+ years with diverse job history. She also had positions in software module development, web app development, functional designs, requirement gathering, client interaction, and server setup/admin & can help everywhere in the stack; she loves wearing multiple hats to an extent. She also believes in enhancing her skills by training and learning new things day by day.

Curriculum details :-

=> Introduction :

~ Overview Preview

=> Spend :

~ Project overview Preview
~ Data load
~ Table report
~ Matrix report
~ Funnel chart
~ Pie chart
~ Scatter plot
~ QnA

=> Product :

~ Project overview
~ Load data
~ Create measure
~ Card total units sold
~ Donut chart
~ World flag

=> Acquisition :

~ Project overview
~ Load data
~ Create measure
~ Card
~ Top performer
~ Region sales
~ Sales last year
~ Profit comparison
~ Moving average

Azure Synapse

Topic Name : CLOUD

Sub-topic Name : AZURE

Course link : <https://ineuron.ai/course/Azure-Synapse>

Course Description :-

Microsoft Azure SQL Data Warehouse - You will be able to deploy Azure Synapse Analytics (formerly known as Azure SQL Data warehouse) in Azure Cloud environment. You will have good internal MPP architecture understanding, and so you will be able to analyze your on-premises data warehouse and migrate data to Azure Data Warehouse.

Course Features :-

- => Self-paced Recording
- => Assignment in all modules
- => Quiz in every module
- => Completion Certificate

What you will learn :-

- => you will learn how Azure Synapse Analytics enables you to perform different types of analytics through its components that can be used to build Modern Data Warehouses through to advanced analytical solutions.
- => You will learn how Azure Synapse Analytics solves the issue of having a single service to fulfill the broad range of analytics requirements that organizations face today and take a tour of the core application used to interact with the various components of Azure Synapse Analytics.
- => You will learn the various components of Azure Synapse Analytics that enable you to build your analytical solutions in one place.

Requirements :-

- => A system with internet connection
- => Your dedication
- => Interest to learn

Instructors :-

- => MD Imran :
 - ~ Working as Data Scientist with experience in solving real world business problems across different domains.

Curriculum details :-

- => Azure Synapse :
 - ~ Module introduction Preview
 - ~ why warehouse in cloud?
 - ~ Traditional vs modern warehouse architecture
 - ~ what is synapse analytics service Preview
 - ~ demo create dedicated sql pool
 - ~ demo connect sql pool with ssms
 - ~ demo create azure synapse analytics workspace
 - ~ Demo explore synapse studio v2
 - ~ demo create dedicated sql pool and spark pool from inside synapse studio
 - ~ demo analyse data using dedicated sql pool
 - ~ analyse data using apache spark notebook
 - ~ demo analyse data using serverless sql
 - ~ demo data factory copy tool from synapse integrate tab
 - ~ demo monitor synapse analytics studio
 - ~ azure synapse a game-changer
 - ~ azure synapse benefits
 - ~ summary

Julia Programming

Topic Name : PROGRAMMING

Sub-topic Name : JULIA

Course link : <https://ineuron.ai/course/Julia-Programming>

Course Description :-

Julia is a high-level, high-performance, dynamic programming language. Julia is also a general-purpose language it can be used to create applications, and many of its features are well suited for numerical analysis and computational science. Upon completion of this course, you will be able to perform Julia programming and you will be able to get a kickstart on how to use Julia for Data Science.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Julia Basics
- => Julia Data Science
- => Julia Projects

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Jaydeep Dixit :

~ Jaydeep Dixit is a data scientist and Blockchain Developer working at iNeuron having 1.5+ years of total experience. He specializes in Machine Learning and Blockchain. He has worked on various end-to-end projects in both machine learning and Blockchain. In addition to his primary job function, he has been recognized for his problem-solving skills.

Curriculum details :-

=> Introduction :

- ~ Introduction
- ~ Who is this course for ?
- ~ Course prerequisite
- ~ What is Julia programming language ?
- ~ Julia vs Other Programming

=> Installation :

- ~ Installation

=> Julia Basics :

- ~ Variables
- ~ Integers Floating Point Numbers
- ~ Mathematical Operators and Elementary functions
- ~ Complex Numbers and Rational numbers
- ~ Strings
- ~ Functions
- ~ Compound Expression
- ~ Conditional Evaluation
- ~ Short Circuit Evaluation
- ~ Loops

=> Julia Data Science Basics :

- ~ Data Basics
- ~ Plotting
- ~ Julia Project

=> Summary :

- ~ Course Summary
- ~ Future Learning Path

C language for Absolute Beginners

Topic Name : PROGRAMMING

Sub-topic Name : C

Course link : <https://ineuron.ai/course/C-language-for-Absolute-Beginners>

Course Description :-

This course is designed mostly for novice programmers who may not have any prior programming language knowledge. From the most fundamental to the most sophisticated subjects, there is something for everyone. Step by step, from a simple to a sophisticated programme. This course should be taken if one want to pursue a career as a programmer.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Introduction to Programming
- => How to develop a software using C Language?
- => Constants
- => Variables
- => Keywords
- => Program to print ASCII code of a given character
- => Unary Operators
- => Arithmetic Operators
- => Bitwise Operators
- => Relational Operators
- => Logical Operators
- => if
- => If else
- => Conditional operator
- => Nested if else
- => If else ladder
- => Practice Programs on decision control

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Saurabh Shukla :

~ Saurabh Shukla has been educating children with this credo, and he does so for free. MySirG.com, the educator's YouTube channel, features video lessons on programming languages. Saurabh has successfully reached thousands of students around the country by making it his aim to produce subject-related videos on a daily basis.

Curriculum details :-

=> Day1 :

- ~ Introduction to Programming
- ~ How to develop a software using C Language?
- ~ Setup Environment for C Programming

=> Day2 :

- ~ History of C Language
- ~ Develop first C Program
- ~ Formal Beginning of Learning C Language

=> Day3 :

- ~ Tokens
- ~ Constants
- ~ Variables
- ~ Keywords

=> Day4 :

- ~ Data Types
- ~ Declaring Variables
- ~ Garbage Value
- ~ float vs double
- ~ ASCII codes

=> Day5 :

- ~ Output text on monitor using printf()
- ~ Escape Sequences
- ~ Printing value of a variable and expression
- ~ Format Specifiers

=> Day6 :

- ~ Taking input from keyboard using scanf()
- ~ Program to calculate sum of two numbers
- ~ Program to calculate area of a circle
- ~ Program to print ASCII code of a given character

=> Day7 :

- ~ Unary Operators
- ~ Arithmetic Operators
- ~ Bitwise Operators
- ~ Relational Operators
- ~ Logical Operators
- ~ Assignment Operators

=> Day8 :

- ~ Practice Programs on Operators
- ~ Doubt Handling Session

=> Day9 :

- ~ Decision Control Instruction
- ~ if
- ~ If else
- ~ Conditional operator
- ~ Nested if else
- ~ If else ladder

=> Day10 :

- ~ Practice Programs on decision control
- ~ Doubt Handling Session

=> Day11 :

- ~ Iterative Control Instruction
- ~ While loop
- ~ Practice Programs

=> Day12 :

- ~ Do while
- ~ For loop
- ~ Practice Programs

=> Day13 :

- ~ Use of break keyword in loop
- ~ Practice Programs
- ~ Doubt Handling Session

Class 7th Math

Topic Name : K12

Sub-topic Name : CLASS7

Course link : <https://ineuron.ai/course/Class-7th-Math>

Course Description :-

This course is useful for Grade 7 students. In this course, entire NCERT will be covered. Various questions from NCERT, NCERT exemplar and previous year will also be discussed. Dedicated doubt clearing sessions will also be conducted for helping the students regularly throughout their learning journey.

Course Features :-

- => Self Paced Videos
- => Completion Certificate

What you will learn :-

- => Algebra
- => Geometry
- => Statistics
- => Numbers
- => Mensuration

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

- => Jayant Topnani :
 - ~ Having 2+ years teaching experience and have mentored students online & offline across all boards.

Curriculum details :-

=> Integers :

- ~ Lecture 1 : Introduction Preview
- ~ Lecture 3 : NCERT Solutions Ex1.1 Question 2,3,4,5
- ~ Lecture 4 : Part 1 NCERT Solutions Ex1.1 Question 5,6,7,8,9,10
- ~ Lecture 5 : Integer Properties
- ~ Lecture 6 : NCERT Solutions Ex 1.2
- ~ Lecture 7 : Multiplication Property
- ~ Lecture 8 : NCERT Solutions Ex1.3 Question 1,2,3
- ~ Lecture 9 : NCERT Solutions Ex1.3 Question 3,4,5,6
- ~ Lecture 10 : NCERT Solutions Ex1.3 Question 7,8,9
- ~ Lecture 12 : NCERT Solutions Ex1.4
- ~ Lecture 13 : NCERT Solutions Ex1.4 Question 5,6,7

=> Fractions & Decimals :

- ~ Lecture 1 : Introduction NCERT Solutions Ex2.1 Question 1 & 2 Preview
- ~ Lecture 2 : NCERT Solutions Ex2.1 Question 3,4,5,6,7,8 Preview
- ~ Lecture 3 : Introduction Multiplication of Fractions
- ~ Lecture 4 : NCERT Solutions Ex2.2
- ~ Lecture 5 : Introduction NCERT Solutions Ex2.3
- ~ Lecture 6 : NCERT Solutions Ex2.3
- ~ Lecture 7 : Introduction NCERT Solutions Ex2.5
- ~ Lecture 8 : NCERT Solutions Ex2.4
- ~ Lecture 10 : NCERT Solutions Ex2.5 Question 1,2
- ~ Lecture 11 : NCERT Solutions Ex2.5 Question 4,5,6,7,8,9
- ~ Lecture 13 : NCERT Solutions Ex2.6
- ~ Lecture 15 : NCERT Solutions Ex2.7

=> Data Handling :

- ~ Lecture 1 : Data Handling Introduction
- ~ Lecture 2 : NCERT Solutions Ex3.1 Question 1,2,3,4,5,6,7,8,9
- ~ Lecture 3 : NCERT Solutions Ex3.2
- ~ Lecture 4 : NCERT Solutions Ex3.3 Question 1,2
- ~ Lecture 6 : NCERT Solutions Ex3.3 Question 4
- ~ Lecture 9 : NCERT Solutions Ex3.4

=> Simple Equations :

- ~ Lecture 1 : Introduction
- ~ Lecture 2 : NCERT Solutions Ex4.1
- ~ Lecture 3 : Introduction Solving Equations
- ~ Lecture 4 : NCERT Solutions Ex 4.2

- ~ Lecture 5 : NCERT Solutions Ex4.3
- ~ Lecture 6 : Introduction NCERT Solutions Ex4.4
- ~ Lecture 7 : NCERT Solutions Ex 4.4

=> Lines and Angles :

- ~ Lecture 1 : Some Important Definitions : Line segment, Line, Angles, Acute Angle, Obtuse Angle, Reflex Angle, Straight Angle, Complementary Angle, Supplementary Angle
- ~ Lecture 2 : Adjacent Angle, Linear Pair, Vertically Opposite Angle
- ~ Lecture 3 : Ex 5.1 Q 1 to 9
- ~ Lecture 4 : Ex 5.1 Q 9 to 14
- ~ Lecture 5 : Intersecting Lines, Transversal and Angles made by a Transversal, Transversal of Parallel Lines.
- ~ Lecture 6 : Checking for Parallel Lines, Ex 5.2

=> The Triangle and its Properties :

- ~ Lecture 1 : Introduction
- ~ Lecture 2 : Elements of Triangle, Vertex, Sides and Angles
- ~ Lecture 3 : Classification of Triangles on the basis of Sides and on the basis of Angles, Angle Sum Property of a Triangle
- ~ Lecture 4 : Median and Altitudes of a Triangle, Ex 6.1
- ~ Lecture 5 : Exterior Angle of a Triangle and its Properties, Ex 6.2
- ~ Lecture 6 : Ex 6.3
- ~ Lecture 7 : Two Special Triangles, Equilateral and Isosceles
- ~ Lecture 8 : Sum of Lengths of Two Sides of a Triangle
- ~ Lecture 9 : Ex 6.4, Q 1 to 5
- ~ Lecture 10 : Right-Angled Triangles And Pythagoras Property
- ~ Lecture 11 : EXERCISE 6.5 Q 3 to 8

=> Congruence of Triangles :

- ~ Lecture 1 : Congruent Figures, Congruence of Triangles
- ~ Lecture 2 : Ex 7.1 Q 1 to 4
- ~ Lecture 3 : Criteria for Congruence of Triangles, SSS Criteria
- ~ Lecture 4 : SAS, ASA Congruence Condition
- ~ Lecture 5 : Congruence Among Right Angle Triangle (RHS Congruence Condition)
- ~ Lecture 6 : Ex 7.2 Q 1 to 5
- ~ Lecture 7 : Ex 7.2 Q 5 to 6

=> Comparing Quantities :

- ~ Lecture 1 : Introduction, Understanding Ratio, Equivalent Ratio
- ~ Lecture 2 : Unitary Method, Ex 8.1, Proportion
- ~ Lecture 3 : Percentage, another way of Comparing Quantities
- ~ Lecture 4 : Converting Decimal to Percentage
- ~ Lecture 5 : NCERT Ex 8.2 Q 6 to 8
- ~ Lecture 6 : Profit and Loss
- ~ Lecture 7 : Question Practice on Profit and Loss
- ~ Lecture 8 : Charge Given on Borrowed money / Simple Interest
- ~ Lecture 9 : EX 8.3 Q 1 to 7
- ~ Lecture 10 : EX 8.3 Q 8 to 11

=> Rational Numbers :

- ~ Lecture 1 : Introduction, Positive and Negative Rational number, Three Important Properties of Rational Numbers, Equivalent Number
- ~ Lecture 2 : Representing Rational Number on Number Lines
- ~ Lecture 3 : Rational Number in Standard Form
- ~ Lecture 4 : Comparison of Rational Numbers, Rational Numbers between two Rational Numbers
- ~ Lecture 5 : EX 9.1 Q 1 to 5
- ~ Lecture 6 : EX 9.1 Q 6 to 10

=> Practical Geometry :

- ~ Lecture 1 : Construct line parallel to given line & triangle if 3 sides are given
- ~ Lecture 2 : Construction triangle SAS, ASA & RHS

=> Perimeter and Area :

- ~ Lecture1_Introduction_&_Course_Content
- ~ Lecture2_Square_&_Rectangle
- ~ Lecture3_NCERT_EX_11.1_PROBLEM_DISCUSSION
- ~ Lecture4_Triangle_As_Part_Of_Rectangle
- ~ Lecture5_Area_Of_Parallelogram
- ~ Lecture6_Area_Of_Triangle
- ~ Lecture7_NCERT_EX11.2_PROBLEM_DISCUSSION
- ~ Lecture8_Circle_Circumference_&_Area_Part1
- ~ Lecture8_Circumference_&_Area_Circle_Part2
- ~ Lecture8_Circumference_&_Area_Circle_Part3
- ~ Lecture9_NCERT_EX11.3_PROBLEM_DISCUSSION
- ~ Lecture10_CONVERSION_OF_UNITS
- ~ Lecture11_Applications_Perimeter_&_Area
- ~ Lecture12_NCERT_EX11.3_PROBLEM_DISCUSSIONS

=> Algebraic Expressions :

- ~ Lecture1_Introduction_&_Topics
- ~ Lecture2_Algebraic_Terminologies
- ~ Lecture3_Like_Vs_Unlike_Terms
- ~ Lecture4_NCERT_EX_12.1_PROBLEM_DISCUSSION
- ~ Lecture5_Addition_&_Subtraction_Algebraic_Expressions
- ~ Lecture6_NCERT_EX_12.2_PROBLEM_DISCUSSION
- ~ Lecture7_Finding_Value_Of_Algebraic_Expression
- ~ Lecture8_NCERT_EX_12.3_PROBLEM_DISCUSSION
- ~ Lecture9_Number_Pattern_Rules
- ~ Lecture10_NCERT_EX12.4_PROBLEM_DISCUSSIONS
- ~ Lecture11_Chapter_Summary_The_End

=> Exponents and Powers :

- ~ Lecture1_Course_Content_&_Introduction

- ~ Lecture2_Exponents_&_Powers
- ~ Lecture3_NCERT_EX_13.1_PROBLEM_DISCUSSIONS
- ~ LECTURE4_LAWS_OF_EXPONENTS
- ~ LECTURE5_NCERT_13.2_PROBLEM_DISCUSSION
- ~ LECTURE6_STANDARD_FORM_NOTATION
- ~ LECTURE7_NCERT_EX13.3_PROBLEM_DISCUSSION

=> Symmetry :

- ~ Lecture1_Introduction_To_Symmetry
- ~ Lecture2_Line_Of_Symmetry_For_Regular_Polygon
- ~ Lecture3_NCERT_EX_14.1_PROBLEM_DISCUSSION
- ~ Lecture4_All_about_Rotational_Symmetry
- ~ Lecture5_NCERT_EX_14.2_PROBLEM_DISCUSSION
- ~ Lecture6_Line_&_Rotational_Symmetry
- ~ Lecture7_NCERT_EX_14.3_PROBLEM_DISCUSSION

=> Visualising Solid Shapes :

- ~ Lecture1_Introduction_&_Course_Walkthrough
- ~ Lecture2_All_About_Nets
- ~ Lecture3_NCERT_EX15.1_PROBLEMS_DISCUSSION
- ~ Lecture4_Oblique_Vs_Isometric_Sketches
- ~ Lecture5_NCERT_EX15.2_PROBLEM_DISCUSSION
- ~ Lecture6_Visualizing_Solid_Objects
- ~ Lecture7_Viewing_Different_Sections_Of_Solid

Class 10th Biology

Topic Name : K12

Sub-topic Name : CLASS10

Course link : <https://ineuron.ai/course/Class-10th-Biology>

Course Description :-

The Science Syllabus is elegantly designed such that it introduces the basic concepts of Science and its importance in our daily life. It will make the foundation strong for the higher classes. The Biology section focuses on concepts like food, bodily movements, surroundings of living organisms, garbage, etc.

Course Features :-

- => Self Paced Videos
- => Completion Certificate

What you will learn :-

- => Life processes
- => Control and coordination
- => How do organisms reproduce
- => Heredity and evolution
- => Our environment
- => Sustainable management of natural resources

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Dr Nishtha Jain :

~ I am a doctor by profession but a teacher by passion. I have been into the teaching profession for the last 3 years. I have been and am still a mentor for various courses which include technical as well as non-technical ones. These include MS-Excel, Tableau, Computer basics, Biology, English, etc. I love to learn, explore and share my knowledge to whatever extent possible. Being an ardent educator, I have always helped all my students and will continue to do the same.

Curriculum details :-

=> Life processes :

- ~ Lecture 1 : Introduction and Types of life processes Preview
- ~ Lecture 2 : Nutrition, Modes of nutrition and Dental caries Preview
- ~ Lecture 3 : Respiration Preview
- ~ Lecture 4 : Excretion (in humans and plants), Haemodialysis and Organ donation
- ~ Lecture 5 : Transportation (in humans)
- ~ Lecture 6 : Blood Pressure, Transportation in Plants
- ~ Lecture 1 - NCERT Solutions
- ~ Lecture 2 - NCERT Solutions
- ~ Lecture 3 - NCERT Solutions
- ~ Lecture 4 - NCERT Solutions
- ~ Lecture 5 - NCERT Solutions
- ~ Lecture 6 - NCERT Solutions
- ~ Lecture 7 - NCERT Solutions
- ~ Lecture 8 - NCERT Solutions

=> Control and coordination :

- ~ Lecture 1 : Introduction, Nervous System
- ~ Lecture 2 : Human brain, Spinal cord
- ~ Lecture 3 : Coordination in Plants
- ~ Lecture 4 : Hormones - Plants and Animals
- ~ Lecture 1 - NCERT Solutions
- ~ Lecture 2 - NCERT Solutions
- ~ Lecture 3 - NCERT Solutions
- ~ Lecture 4 - NCERT Solutions
- ~ Lecture 5 - NCERT Solutions
- ~ Lecture 6 - NCERT Solutions
- ~ Lecture 7 - NCERT Solutions

=> How do organisms reproduce :

- ~ Lecture 1 : Reproduction and its types
- ~ Lecture 2 : Types of Asexual Reproduction
- ~ Lecture 3 : Sexual Reproduction in Plants
- ~ Lecture 4 : Sexual Reproduction in Humans
- ~ Lecture 5 : Menstrual Cycle and Contraceptive methods
- ~ Lecture 1 - NCERT Solutions

- ~ Lecture 2 - NCERT Solutions
- ~ Lecture 3 - NCERT Solutions
- ~ Lecture 4 - NCERT Solutions
- ~ Lecture 5 - NCERT Solutions
- ~ Lecture 6 - NCERT Solutions

=> Heredity and evolution :

- ~ Lecture 1 : Introduction
- ~ Lecture 2 : Mendel's Laws of Inheritance
- ~ Lecture 3 : Sex determination, Evolution
- ~ Lecture 4 : Speciation, Fossils
- ~ Lecture 1 - NCERT Solutions
- ~ Lecture 2 - NCERT Solutions
- ~ Lecture 3 - NCERT Solutions
- ~ Lecture 4 - NCERT Solutions
- ~ Lecture 5 - NCERT Solutions
- ~ Lecture 6 - NCERT Solutions
- ~ Lecture 7 - NCERT Solutions
- ~ Lecture 8 - NCERT Solutions
- ~ Lecture 9 - NCERT Solutions
- ~ Lecture 10 - NCERT Solutions
- ~ Lecture 11 - NCERT Solutions

=> Our environment :

- ~ Lecture 1 : Environment, Ecosystem, Food Chain, Ecosystem components, Trophic levels, Law of energy transfer
- ~ Lecture 2 : Producers, Consumers, Decomposers, Effect of human activities on the environment, Biodegradable and Non-biodegradable substances
- ~ Lecture 1 - NCERT Solutions
- ~ Lecture 2 - NCERT Solutions
- ~ Lecture 3 - NCERT Solutions
- ~ Lecture 4 - NCERT Solutions
- ~ Lecture 5 - NCERT Solutions
- ~ Lecture 6 - NCERT Solutions

=> Sustainable management of natural resources :

- ~ Lecture 1 : Natural Resources and their types, Artificial Resources, 5 'R's, Forests and Wildlife
- ~ Lecture 2 : Forest stakeholders, Bishnoi Community, Management of Forests
- ~ Lecture 3 : Water, Harvesting of water, Coal and Petroleum, Conservation of natural resources

Data Structure and Algorithms with competitive programming

Topic Name : DATA STRUCTURE

Sub-topic Name : DSA MASTERS

Course link : <https://ineuron.ai/course/Data-Structure-and-Algorithms-with-competitive-programming>

Course Description :-

Data Structure and Algorithms for Beginners to Advance entire course will be discussed in python language and all the implementation and project will be done by using python .

Course Features :-

- => Online Instructor-led learning: Live teaching by instructors
- => Every week doubt clearing session after the live classes
- => Lifetime Dashboard access
- => Doubt clearing one to one
- => Assignment in all the module
- => Quiz in every module
- => Everything will be discussed with python

What you will learn :-

- => Analysis in Algorithms
- => Divide and Conquer
- => Greedy Technique
- => Dynamic Programming
- => Arrays
- => Linked List
- => Skip List
- => Hashing
- => Tree
- => Graph Traversal
- => Tree Traversal
- => Programming
- => Stack
- => Queue
- => String Matching
- => NP-Hard and NP-Complete Problems

Requirements :-

- => Dedication
- => PC with internet connectivity

Instructors :-

=> Priya Bhatia :

~ Expertise in data structure competitive programming and solving an analytical problems and implementing data structure algorithm in multiple programming language. I have done my M.Tech in Artificial Intelligence at IIT Hyderabad and have an experience of implementation in multiple projects.

Curriculum details :-

=> Analysis in Algorithms :

- ~ Introduction to Algorithms Preview
- ~ Analyzing Algorithm Preview
- ~ Asymptotic Notation Preview
- ~ Big O
- ~ Omega
- ~ Theta
- ~ Recurrence Relation Solving
- ~ Substitution Method
- ~ Recursive Tree Method
- ~ Master's Theorem

=> Divide and Conquer :

- ~ Introduction to Divide and Conquer
- ~ Discussion of applications of Divide and Conquer
- ~ Finding of maxima and minima

- ~ *Finding Power of an Element*
- ~ *Binary Search*
- ~ *Quicksort*
- ~ *Mergesort*
- ~ *Strassen's Matrix Multiplication*
- ~ *Maximum-subarray problem*
- ~ *Finding of number of inversions*

=> Greedy Technique :

- ~ *Introduction to Greedy Techniques*
- ~ *Discussion of applications of Greedy Technique*
- ~ *Knapsack Problem*
- ~ *Job Sequencing with deadline*
- ~ *Huffman Coding*
- ~ *Optimal Merge Pattern*
- ~ *Minimum Cost Spanning Tree*
- ~ *Kruskal Algorithm*
- ~ *Prim's Algorithm*
- ~ *Single Source Shortest Path*
- ~ *Dijkstra's Algorithm*
- ~ *Bellmanford Algorithm*

=> Dynamic Programming :

- ~ *Introduction to Dynamic Programming*
- ~ *Discussion of applications of Dynamic Programming*
- ~ *Fibonacci Series*
- ~ *Longest Common Subsequence*
- ~ *0/1 Knapsack*
- ~ *Sum of Subset*
- ~ *All Shortest Path*
- ~ *Matrix Chain Multiplication*

=> Arrays :

- ~ *Introduction to Arrays*
- ~ *One Dimensional Array - How to find the address of an element in an array*
- ~ *Two Dimensional Array*
- ~ *Row Major Order*
- ~ *Column Major Order*
- ~ *Searching in an array*
- ~ *Linear Search*
- ~ *Binary Search(Discussed in DAC)*
- ~ *Sorting of an array*
- ~ *Comparison Sort*
- ~ *Selection Sort*
- ~ *Bubble Sort*
- ~ *Insertion Sort*
- ~ *Quicksort(Discussed in DAC)*
- ~ *Mergesort(Discussed in DAC)*
- ~ *Non Comparison Sort*
- ~ *Radix Sort*
- ~ *Bucket Sort*
- ~ *Count Sort*

=> Linked List :

- ~ *Introduction to Linked List*
- ~ *Searching in Linked List*
- ~ *Deleting from a Linked List*
- ~ *Doubly Linked List*
- ~ *Reversal in linked list*

=> Skip List :

- ~ *Introduction to Skip List*
- ~ *Operations and Randomization in Skip Lists*
- ~ *Insertion and Deletion in Skip Lists*
- ~ *Complexity analysis*

=> Hashing :

- ~ *Introduction to Hashing*
- ~ *Hash Tables*
- ~ *Hash Functions*
- ~ *Collision Resolution Techniques*
- ~ *Chaining*
- ~ *Open Addressing*
- ~ *Linear Probing*
- ~ *Quadratic Probing*
- ~ *Double Hashing*
- ~ *Perfect Hashing*
- ~ *Analysis of Chaining*
- ~ *Analysis of Open Addressing*
- ~ *Application of Hashing : Bloom Filters Discussion*

=> Tree :

- ~ *Introduction to Binary Tree*
- ~ *Binary Search Tree*
- ~ *AVL Tree - Creation , Insertion, Deletion*
- ~ *Red Black Tree - Creation , Insertion, Deletion*
- ~ *BTree and B+ Tree - Creation , Insertion, Deletion*

=> Graph Traversal :

- ~ *Breadth First Search*
- ~ *Depth First Search*

=> Tree Traversal :

- ~ Preorder Traversal
- ~ Postorder Traversal
- ~ Inorder Traversal

=> Programming :

- ~ Static and Dynamic Scoping
- ~ Static Variable
- ~ Pointers

=> Stack :

- ~ Introduction to Stack Data Structure
- ~ Implementation of Stack Using Arrays
- ~ Implementation of Stack Using Linked List
- ~ Average Stack Lifetime of an element
- ~ Implementing multiple stacks in single array
- ~ Applications of Stack
- ~ Recursion
- ~ Tail Recursion
- ~ Non-Tail Recursion
- ~ Nested Recursion
- ~ Indirect Recursion
- ~ Infix to Postfix
- ~ Prefix to Postfix
- ~ Postfix Evaluation
- ~ Towers of Hanoi
- ~ Fibonacci Series

=> Queue :

- ~ Introduction to Queue Data Structure
- ~ Implementation of Queue Using Arrays
- ~ Implementation of Queue Using Linked List
- ~ Circular Queue
- ~ Priority Queue
- ~ Implementation of Stack using Queue

=> String Matching :

- ~ Naive String Matching Algorithms
- ~ Rabin-Karp Algorithm
- ~ String Matching with finite automata

=> NP-Hard and NP-Complete Problems :

- ~ NP-Hard
- ~ NP-Complete Problem

Salesforce Administrator

Topic Name : SALESFORCE

Sub-topic Name : SALESFORCE ADMINISTRATOR

Course link : <https://ineuron.ai/course/Salesforce-Administrator>

Course Description :-

This hands-on Salesforce Administration course is for IT professionals and students interested in learning the fundamentals of Salesforce Administration duties. The goal of this course is to provide a foundation in Salesforce Administration activities. You will learn how to use CRM products, gain a foundational understanding of Sales Cloud, Service Cloud, and Customer Service, manage users, apply validations and formulas, provide object level security and field level security, manage workflows and data, build processes, create communities, and administer emails after completing this course.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Cloud Computing And Types
- => Salesforce And Its Products
- => Sales Cloud-Generic Business Process
- => Relationships In Salesforce

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Curriculum details :-

- => Definition Of Cloud Computing And Types :
 - ~ Definition of cloud computing
 - ~ On-demand advantages of Cloud computing
 - ~ Services of Cloud computing
 - ~ SaaS(Software as a Service)
 - ~ PaaS(Platform as a Service)
 - ~ IaaS(Infrastructure as a Service)
 - ~ Types of Clouds
 - ~ Public Cloud
 - ~ Private Cloud
 - ~ Hybrid Cloud
 - ~ Community Cloud
- => Definition Of Salesforce And Its Products :
 - ~ Importance of Salesforce
 - ~ Importance of CRM and Solutions
 - ~ Growth of Revenue using CRM
 - ~ comparison of Salesforce CRM with other CRM Products
 - ~ Salesforce Products
 - ~ Salesforce Features and Edition Limits
- => Sales Cloud-Generic Business Process :
 - ~ Features of Sales Cloud
 - ~ Products
 - ~ Campaign
 - ~ Lead
 - ~ Account
 - ~ Opportunity
 - ~ Contact
 - ~ Contract
 - ~ QuoteManage
 - ~ Order
- => Service Cloud and Customer Service :
 - ~ Features of Service cloud
 - ~ case

- ~ *Solution*
- ~ *Public Knowledge Base*
- ~ *Web-to-case*
- ~ *Self-Service Portal*
- ~ *Escalation rules*

=> **Company Information :**

- ~ *Creating Company Profile*
- ~ *Setting Fiscal Year, Business Hours*
- ~ *Setting Holidays and Language*
- ~ *Identifying Edition*

=> **Salesforce-Force.Com Platform :**

- ~ *Creating User Login Credentials*
- ~ *Setup-Personal Setup*
- ~ *About Administration Setup*
- ~ *Standard Applications, Tabs and Objects*
- ~ *Creating Custom Application(Design), Custom Objects and Custom Tabs*
- ~ *Creating Custom Fields Using Data Types and Picklist and Dependencies*

=> **Manage Users :**

- ~ *Creating users and Roles*
- ~ *Creating Custom Profiles*
- ~ *Discussion on Standard Profiles*
- ~ *Creating Permission Sets and Public Groups and Queues*
- ~ *Login History*

=> **Relationships In Salesforce :**

- ~ *Lookup Relationship*
- ~ *Master-Detail Relationship*
- ~ *Many to many Relationships*
- ~ *Junction Object*
- ~ *Rollup Summary Fields*
- ~ *Real Time Scenarios*

=> **Applying Validations And Formulas :**

- ~ *Overview of validation*
- ~ *Creating Validation Rule*
- ~ *Apply Formula in Validation*
- ~ *PageLayout on Objects*
- ~ *Mini PageLayout*
- ~ *Search Layout*
- ~ *Record Type*
- ~ *Field Level Security on Layout*

=> **Object Level Security Model (Table) :**

- ~ *Profile Level*
- ~ *Permission Set Level*

=> **Field Level Security Model (Column) :**

- ~ *Profile Level*
- ~ *Page Layout Security*
- ~ *Permission Set Security*

=> **Record Level Security Model-Sharing Settings(Row) :**

- ~ *Overview of Record Level security*
- ~ *Organization-Wide-Default*
- ~ *Sharing Rules*
- ~ *Grant Access Using Hierarchies*
- ~ *Internal Access*
- ~ *External Access*
- ~ *Manual Sharing*
- ~ *Owner Based Sharing Rule*
- ~ *Both Usage of Profile and OWD*
- ~ *Real Time Scenarios*

=> **Workflows And Approvals :**

- ~ *Overview of Workflows*
- ~ *Email Alerts*
- ~ *Tasks*
- ~ *Field Updates*
- ~ *Outbound Messages*
- ~ *Time Dependent Workflow Actions*
- ~ *Real Time Scenarios*

=> **Data Management With SFDC :**

- ~ *Overview Import wizard*
- ~ *Limitations on Import Wizard*
- ~ *Data Export*
- ~ *Import Objects*
- ~ *.CSV File usage in salesforce*
- ~ *Import Data into Salesforce*
- ~ *Data Loader*
- ~ *Mass Transfer Records and Delete of Records*

=> **Process Builder :**

- ~ *Overview of Process Builder*
- ~ *Working with Process Builder*
- ~ *Workflows With Process Builder*

=> **Community Creation :**

- ~ *Customer community*

- ~ Partner Community
- ~ Creating User On Community
- ~ Self Registration

=> Security Settings :

- ~ Single-Sign-on settings
- ~ Session Settings
- ~ Password Policies
- ~ Identity Provides
- ~ Login Access
- ~ Identity Connect
- ~ Email Admin Setup

=> Email Administration :

- ~ Deliverability
- ~ Test Deliverability
- ~ Organization-Wide Addresses
- ~ Setting Email Footers
- ~ Compliance BCC Email

=> Reports And Dashboards :

- ~ Importance of Reports
- ~ Discussion On Standard Report
- ~ Creating Custom Report, Tabular Report, Summary report, Matrix Report
- ~ Creating Joined Report and Report Types
- ~ Applying Filters on Report
- ~ Run Report
- ~ Export Report
- ~ Create Dashboard
- ~ Fetching Dashboard into Visualforce

Azure Data scientist Associate DP100

Topic Name : CLOUD

Sub-topic Name : AZURE

Course link : <https://ineuron.ai/course/Azure-Data-scientist-Associate-DP100>

Course Description :-

Through this course, candidates for the Azure Data Scientist Associate certification should will be able to implement and execute machine learning workloads on Azure using data science and machine learning abilities.

Course Features :-

- => Roadmap
- => Real-Time implementation
- => ML/DL model testing and monitoring
- => Scenario-based questions
- => Challenges
- => Downloadable resources
- => Quizzes
- => Completion Certificate

What you will learn :-

- => Learn basics of Python programming language
- => How to make models and implement solutions for Azure ML Platform
- => Tackle the Microsoft DP-100 Microsoft Azure Machine Learning test
- => Be up-to-date on the latest updates of this ever-changing platform

Requirements :-

- => No prior knowledge in programming as well as cloud
- => Zero-knowledge of Azure portal
- => Azure free or paid account
- => A system with internet connection
- => Your dedication

Instructors :-

- => MD Imran :
 - ~ Working as Data Scientist with experience in solving real world business problems across different domains.

Curriculum details :-

- => Course introduction :
 - ~ Introduction to Course Preview
 - ~ Create Your Free Azure Account Preview
- => Basics of Machine Learning :
 - ~ Machine Learning part 1
 - ~ Machine Learning part 2
 - ~ Types of Machine Learning
 - ~ Walkthrough of Azure ML
- => Basic statistics :
 - ~ Statistics part 1
 - ~ Statistics part 2
 - ~ Statistics part 3
 - ~ Statistics part 4
 - ~ Statistics part 5
- => Getting started with Azure ML :
 - ~ What is Azure ML studio
 - ~ Overview of Azure ML studio
 - ~ Azure ML experiment workflow
- => Data processing :
 - ~ How to upload data
 - ~ How to import data
 - ~ Add rows/columns and remove duplicates
 - ~ Add Rows/Columns and Remove duplicates
 - ~ Apply SQL Transformation, Clean Missing Data
 - ~ Sample and data partition
 - ~ Split data
- => Classification :

- ~ Different classification algorithms
- ~ What is logistic regression
- ~ Hands-On - Logistic regression part 1
- ~ Hands-On - Logistic regression part 2
- ~ Logistic regression - Understand parameters and their impact
- ~ Confusion matrix, AUC, accuracy etc
- ~ Logistic regression model selection and impact analysis
- ~ Demo on Logistic regression part 1
- ~ Demo on Logistic regression part 2
- ~ What is Decision tree
- ~ What is Bagging and Boosting ?
- ~ Two class boosted Decision tree
- ~ Demo on two class boosted Decision tree
- ~ Decision forest parameters explained
- ~ Demo on two class Decision forest
- ~ Demo multi-class Decision forest IRIS data
- ~ What is SVM ?
- ~ Demo on SVM part 1
- ~ Demo on SVM part 2

=> Hyperparameter tuning :

- ~ What is hyperparameter tuning
- ~ Demo on hyperparameter tuning

=> Deploy webservice :

- ~ Azure ML webservice-prepare the experiment for webservice
- ~ Demo Deploy Machine Learning Model as a web service
- ~ Demo - use the web service example of excel

=> Regression Analysis :

- ~ What is Linear regression
- ~ Regression analysis comma metrics
- ~ Demo linear regression using OLS
- ~ R squared
- ~ Gradient descent
- ~ Online gradient descent
- ~ Demo online gradient
- ~ What is a regression tree
- ~ What is boosted decision tree
- ~ Demo boosted decision tree part 1
- ~ Demo boosted decision tree part 2

=> Clustering :

- ~ What is cluster analysis theory
- ~ What is cluster analysis
- ~ Demo on cluster analysis part 1
- ~ Demo on cluster analysis part 2

=> Hands-on data processing :

- ~ How to Summarize Data
- ~ Demo on summarizing data
- ~ What is outliers and outlier treatment
- ~ Demo on outliers
- ~ Cleaning missing data with MICE
- ~ Hands-on cleaning missing data with MICE
- ~ SMOTE- create new synthetic observations
- ~ Demo on SMOTE
- ~ Data normalization - scale and reduce
- ~ Demo on data normalization
- ~ What is PCA
- ~ Demo on PCA
- ~ Join data
- ~ Demo on join data

=> Feature selection :

- ~ Feature selection
- ~ Pearson correlation coefficient
- ~ Chi-Square test of independence
- ~ Kendall correlation coefficient
- ~ Spearman rank correlation
- ~ Demo on filter based selection
- ~ Fisher based LDA
- ~ Demo on LDA

=> Recommendation system :

- ~ What is recommendation
- ~ Data preparation using recommender split
- ~ What is matchbox recommender
- ~ How to score the matchbox recommender
- ~ Restaurant recommendation experiment
- ~ Understanding the matchbox recommendation results

=> Text analytics and Natural language Processing :

- ~ What is text analytics and Natural Language Processing
- ~ Text pre-processing
- ~ Bag of words and n-gram models for text features
- ~ Feature hashing
- ~ Demo on text analytics

=> About DP certification exam :

- ~ Exam curriculum discussion

=> Azure Machine learning with Studio Designer :

- ~ What this section covers for topics

=> Set up Azure Machine Learning Workspace :

- ~ Azure ML service architecture
- ~ Create the Azure ML workspace
- ~ View and manage workspace
- ~ Overview of new Azure ML studio
- ~ What is Azure ML datastore and dataset
- ~ Create and register a datastore
- ~ How to create dataset
- ~ Understanding the Azure ML compute resources
- ~ Create a compute cluster and compute instance

=> Train models and Azure pipeline :

- ~ What is the Azure ML pipeline
- ~ Create a pipeline using Azure ML designer
- ~ Submit the designer pipeline run
- ~ Create an inference pipeline

=> Deploy and consume the models :

- ~ Deploy a real-time endpoint using designer
- ~ Create a batch inference pipeline
- ~ Run a batch inference pipeline from designer

=> Pandas and scikit learn in designer/classic studio :

- ~ Pandas - import data from experiments
- ~ Selecting columns using pandas
- ~ Clean missing data
- ~ Edit metadata of columns using pandas
- ~ Summary statistics of data
- ~ Remove outliers
- ~ Covert and save a delimited file using pandas
- ~ Data normalization
- ~ Label encoding of categorical string data
- ~ What is encoding
- ~ Hot encoding using pandas get_dummies
- ~ Split the data for training and testing
- ~ Build logistic regression using python part 1
- ~ Build logistic regression using python part 2

=> Azure machine learning with Azure ML SDK :

- ~ Introduction to Azure ML SDK

=> DP 100 set up Azure Machine Learning workspace :

- ~ Create Azure ML workspace using SDK
- ~ Verify the workspace and write the workspace config file
- ~ Create and register a datastore using Azure ML SDK
- ~ Create and register a dataset using SDK
- ~ Access workspace, datastore and datasets using SDK
- ~ Pandas dataframe and Azure ML dataset conversions
- ~ Upload local data to storage account via datastore

=> DP 100 run and experiments and train models :

- ~ Problem statement - run a sample experiment and log values
- ~ Run a sample experiment using Azure ML SDK - part 1
- ~ Run a sample experiment using Azure ML SDK - part 2
- ~ Run a script in Azure ML environment - part 1
- ~ Run a script in Azure ML environment - part 2
- ~ Run a script in Azure ML environment - part 3
- ~ Run a script in Azure ML environment - part 4
- ~ Run a script in Azure ML environment - part 5
- ~ Train and run a model script in Azure ML part 1
- ~ Train and run a model script in Azure ML part 2
- ~ Train and run a model script in Azure ML part 3
- ~ Train and run a model script in Azure ML part 4
- ~ Train and run a model script in Azure ML part 5
- ~ Provisioning compute cluster using SDK
- ~ Automate model training using Azure ML SDK
- ~ Automate model training - define pipeline steps
- ~ Automate model training - define run configuration
- ~ Automate model training - define build and run
- ~ Detour - command line arguments
- ~ Automate model training - create dataprep step
- ~ Automate model training - create training step
- ~ Run the pipeline and see the results

=> Python scripts in Azure ML designer :

- ~ Simple python script in designer
- ~ Execute python script using zip bundle
- ~ Execute python script using zip bundle - hands-on

=> Azure AutoML :

- ~ What is Azure AutoML?
- ~ Use the automated ML interface in Azure Machine Learning studio
- ~ View the AutoML run result
- ~ Use automated ML from the Azure Machine Learning SDK
- ~ Retrieve the best model and view results

=> Azure hyperdrive :

- ~ Introduction to Azure hyperdrive

- ~ Define the hyperparameter search space
- ~ Select a sampling method
- ~ Define early termination options
- ~ Configure the hyperdrive run
- ~ Create the training script for hyperdrive run
- ~ Retrieve the best model

=> Model explainers to interpret models :

- ~ Why is model explanation necessary?
- ~ Understanding shapley value
- ~ Interpretability techniques in Azure
- ~ Implement interpretability - initial set-up
- ~ Implement interpretability - global explanations
- ~ Implement interpretability - local explanations part 1
- ~ Implement interpretability - local explanations part 2
- ~ Run interpret model script in Azure workspace
- ~ Visualize explanations in Azure ML studio
- ~ Retrieve/Download feature importance values.

=> Model registration and deployment using Azure ML SDK :

- ~ Model deployment steps
- ~ Understanding model/object serialization
- ~ Hands-on - serialization using joblib
- ~ Handling onehotencoding/dummy values in production
- ~ Hands-on - dummy variables in production
- ~ Train the model for web service deployment
- ~ Register the model using run_id
- ~ Register the model using a local.pkl file
- ~ Retrieve all the registered models from the workspace
- ~ Provisioning AKS production cluster using SDK
- ~ Create the inference and deployment configuration for webservice
- ~ Entry script - init function
- ~ Understanding data processing using JSON, dictionary and dataframe
- ~ Entry script - run function
- ~ Create web services deployment object
- ~ Deploy a real-time endpoint using SDK
- ~ Consume the web service from Python program
- ~ Consume the web service as an end point.

=> Databricks with Azure ML :

- ~ Databricks with Azure ML
- ~ Databricks update to DP-100
- ~ (Optional) what is Big data?
- ~ (Optional) what is Hadoop?
- ~ Create an Azure databricks workspace
- ~ Note on deleting databricks resource in Azure portal
- ~ Note on increasing vCPU quota limits
- ~ Create an Azure databricks cluster
- ~ Create an Azure databricks cluster
- ~ Link Azure ML workspace with the databricks workspace
- ~ Create and run notebooks in Azure databricks part-1
- ~ Create and run notebooks in Azure databricks part-2
- ~ Mount blob storage to databricks using duties part-1
- ~ Mount blob storage to databricks using duties part-2
- ~ Run a sklearn experiment with databricks notebook
- ~ Overview to run a training script using databricksstep in a pipeline
- ~ Saving data to Azure blob storage from databricks
- ~ Passing parameters between Azure databricks notebooks
- ~ Attach a databricks cluster as an attached computer target
- ~ Verify databricks cluster as attached compute
- ~ Databricks pipeline - initial set-up
- ~ Databricks pipeline - build databricksstep
- ~ Databricks pipeline - databricks and Python notebook
- ~ Databricks pipeline - submit the pipeline and verify the output

=> Azure fundamentals :

- ~ Azure storage services
- ~ Azure virtual machine
- ~ Azure network resources

=> Product overview :

- ~ Product overview

=> Python basics :

- ~ An important note
- ~ Install Anaconda
- ~ Hello world and know your environment
- ~ Python identifiers and reserved words
- ~ What are variable and variable types
- ~ Basic operators
- ~ Decision making
- ~ Python loops
- ~ Python numbers
- ~ Python list
- ~ Python tuple
- ~ Python string
- ~ Python sets
- ~ Python dictionary
- ~ Python functions
- ~ Python arguments

- ~ *Object-Oriented programming*
- ~ *Packages and modules in python*

C Coding Interview Preparation

Topic Name : PROGRAMMING

Sub-topic Name : C

Course link : <https://ineuron.ai/course/C-Coding-Interview-Preparation>

Course Description :-

This course is designed mostly for C test takers.

Course Features :-

=> Quizzes

=> Course completion certificate

What you will learn :-

=> C Theoretical Test

=> C Practical Test

=> C Aptitude Test

Requirements :-

=> System with minimum i3 processor or better

=> At least 4 GB of RAM

=> Working internet connection

=> Dedication to solve

Curriculum details :-

=> C Coding Test :

~ C Test 1

~ C Test 2

~ C Test 3

~ C Test 4

~ C Test 5

~ C Test 6

~ C Test 7

~ C Test 8

~ C Test 9

~ C Test 10

~ C Test 11

~ C Test 12

~ C Test 13

~ C Test 14

~ C Test 15

~ C Test 16

~ C Test 17

~ C Test 18

~ C Test 19

~ C Test 20

Socket io Crash Course

Topic Name : WEB DEVELOPEMENT

Sub-topic Name : FULL STACK WEB DEVELOPMENT

Course link : <https://ineuron.ai/course/Socket-io-Crash-Course>

Course Description :-

This course will help you to grab the fundamentals of socket.io .

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Socket IO

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

=> Socket IO Crash Course :

~ Socket IO

=> NaN :

- ~ NaN
- ~ NaN
- ~ NaN
- ~ NaN
- ~ NaN
- ~ NaN

Class 7th Biology

Topic Name : K12

Sub-topic Name : CLASS7

Course link : <https://ineuron.ai/course/Class-7th-Biology>

Course Description :-

The Science Syllabus is elegantly designed such that it introduces the basic concepts of science and its importance in our daily life. It will make the foundation strong for the higher classes. The Biology section focuses on concepts like food, bodily movements, surroundings of living organisms, garbage, etc.

Course Features :-

- => Self Paced Videos
- => Completion Certificate

What you will learn :-

- => Nutrition in Plants
- => Nutrition in Animals
- => Weather, Climate and Adaptations of Animals to Climates

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Dr Nishtha Jain :

~ I am a doctor by profession but a teacher by passion. I have been into the teaching profession for the last 3 years. I have been and am still a mentor for various courses which include technical as well as non-technical ones. These include MS-Excel, Tableau, Computer basics, Biology, English, etc. I love to learn, explore and share my knowledge to whatever extent possible. Being an ardent educator, I have always helped all my students and will continue to do the same.

Curriculum details :-

=> Nutrition in Plants :

- ~ Lecture 1 : Introduction & Photosynthesis Preview
- ~ Lecture 2 : Other modes of Nutrition Preview
- ~ Lecture 3 : Cells and nutrient replenishment of Soil Preview
- ~ Lecture 1 - NCERT Solutions
- ~ Lecture 2 - NCERT Solutions

=> Nutrition in Animals :

- ~ Lecture 1 : Introduction
- ~ Lecture 2 : Digestion in Humans (Mouth)
- ~ Lecture 3 : Tooth decay, Esophagus & Stomach
- ~ Lecture 4 : Small Intestine, Large Intestine, Anus, Diarrhoea
- ~ Lecture 5 : - Digestion in grass-eating animals, nutrition in amoeba
- ~ Lecture 1 - NCERT Solutions
- ~ Lecture 2 - NCERT Solutions

=> Weather, Climate and Adaptations of Animals to Climates :

- ~ Lecture 1 : Introduction and Weather
- ~ Lecture 2 : Change of Seasons, Climate and types
- ~ Lecture 3 : Climate & Adaptations (Polar region)
- ~ Lecture 4 : Climate & Adaptations (tropical rainforests)
- ~ Lecture 1 - NCERT Solutions
- ~ Lecture 2 - NCERT Solutions

Complete Interview Preparation For Data Structure and Algorithm in Python

Topic Name : DATA STRUCTURE

Sub-topic Name : DSA INTERVIEW

Course link : <https://ineuron.ai/course/Complete-Interview-Preparation-For-Data-Structure-and-Algorithm-in-Python>

Course Description :-

This course will teach you about different data structures and algorithms. In addition, you'll be able to learn how to arrange your replies in-depth explanations using Python and discover how to understand frequently-asked technical interview questions.

Course Features :-

- => 400+ Interview DSA questions with explanation and coding files
- => Explanation of every data structure and intuition behind algorithms
- => Understand which algorithms to use for a particular problem statement
- => Learn how to approach a problem and explain it to an interviewer
- => Build confidence for the development related interviews

What you will learn :-

- => Arrays
- => Linked Lists
- => Matrix
- => Backtracking
- => Bit Manipulation
- => Binary Tree
- => Binary Search Tree
- => Divide and Conquer
- => Dynamic Programming
- => Graph
- => Heap
- => Queue
- => Stack
- => Sorting
- => String
- => Trie

Requirements :-

- => A System with Internet Connection
- => Consistency and Dedication

Instructors :-

- => Vaibhav Kumar :
 - ~ Keen Problem solver and a Competitive coder, Ex-Gainsight

Curriculum details :-

- => Array :
 - ~ Find pair with given sum in the array Preview
 - ~ Check if subarray with 0 sum is exists or not Preview
 - ~ Print all sub-arrays with 0 sum
 - ~ Sort binary array in linear time
 - ~ Find a duplicate element in a limited range array
 - ~ Find maximum length sub-array having given sum
 - ~ Find maximum length sub-array having equal number of 0s and 1s
 - ~ Find maximum product of two integers in an array
 - ~ Sort an array containing 0s, 1s and 2s (dutch national flag problem)
 - ~ In place merge two sorted arrays
 - ~ Merge two arrays by satisfying given constraints
 - ~ Find index of 0 to replace to get maximum length sequence of continuous ones
 - ~ Shuffle a given array of elements (fisheryates shuffle)
 - ~ Rearrange the array with alternate high and low elements
 - ~ Find equilibrium index of an array
 - ~ Find largest sub-array formed by consecutive integers

- ~ Find majority element (boyermoore majority vote algorithm)
- ~ Move all zeros present in the array to the end
- ~ Replace each element of array with product of every other element without using / operator
- ~ Find longest bitonic subarray in an array
- ~ Longest increasing subsequence
- ~ Find maximum difference between two elements in the array by satisfying given constraints
- ~ Maximum sum subarray problem (kadaness algorithm)
- ~ Print continuous subarray with maximum sum
- ~ Maximum sum circular subarray
- ~ Find all distinct combinations of given length I
- ~ Find all distinct combinations of given length with repetition allowed
- ~ Find maximum sequence of continuous 1s formed by replacing at-most k zeroes by ones
- ~ Find minimum sum subarray of given size k
- ~ Find maximum product subarray in a given array
- ~ Find subarray having given sum in given array of integers
- ~ Find the length of smallest subarray whose sum of elements is greater than the given number
- ~ Find largest number possible from set of given numbers
- ~ Find the smallest window in array sorting which will make the entire array sorted
- ~ Find maximum sum path involving elements of given arrays
- ~ Maximum profit earned by buying and selling shares any number of times
- ~ Trapping rain water within given set of bars
- ~ Find minimum platforms needed in the station so to avoid any delay in arrival of any train
- ~ Decode the array constructed from another array
- ~ Sort an array using one swap
- ~ Find triplet with given sum in an array
- ~ Length of longest continuous sequence with same sum in given binary arrays
- ~ Reverse every consecutive m elements of the given subarray
- ~ Maximum product subset problem
- ~ Find pairs with given difference k in the array
- ~ Find pairs with given difference k in the array | constant space solution
- ~ 4 sum problem | quadruplets with given sum
- ~ Print all quadruplets with given sum | 4-sum problem extended
- ~ Quickselect algorithm
- ~ Rearrange array such that $a[a[i]]$ is set to i for every element $a[i]$
- ~ Print all triplets that forms arithmetic progression
- ~ Print all triplets that forms geometric progression
- ~ Print all combination of numbers from 1 to n having sum n
- ~ Replace each element of the array by its corresponding rank in the array
- ~ Print all triplets in an array with sum less than or equal to given number
- ~ Group elements of an array based on their first occurrence
- ~ Find minimum difference between index of two given elements present in the array
- ~ Find maximum absolute difference between sum of two non-overlapping sub-arrays
- ~ Find all symmetric pairs in an array of pairs
- ~ Partition an array into two sub-arrays with the same sum
- ~ Find count of distinct elements in every sub-array of size k
- ~ Find two numbers with maximum sum formed by array digits
- ~ Print all sub-arrays of an array having distinct elements
- ~ Find a triplet having maximum product in an array
- ~ Find minimum index of repeating element in an array
- ~ Generate random input from an array according to given probabilities
- ~ Find pair in an array having minimum absolute sum
- ~ Find index of maximum occurring element with equal probability
- ~ Check if an array is formed by consecutive integers
- ~ Find two non-overlapping pairs having same sum in an array
- ~ Add elements of two arrays into a new array
- ~ Find minimum product among all combinations of triplets in an array
- ~ Replace every element of an array with the least greater element on its right
- ~ Find all odd occurring elements in an array having limited range of elements
- ~ Count the distinct absolute values in the sorted array
- ~ Print all combinations of positive integers in increasing order that sum to a given number
- ~ Find all distinct combinations of given length II
- ~ Find subarrays with given sum in an array
- ~ Find the surpasser count for each element of an array
- ~ Find maximum length sequence of continuous ones (using sliding window)
- ~ Find maximum length sequence of continuous ones
- ~ Find index that divides an array into two non-empty subarrays of equal sum
- ~ Calculate frequency of all elements present in an array of specified range
- ~ Rearrange the array such that it contains positive and negative numbers at alternate positions
- ~ Find a sorted triplet in the given array
- ~ Shuffle an array according to the given order of elements
- ~ Count number of strictly increasing sub-arrays in an array
- ~ Find duplicates within given range k in an array
- ~ Longest alternating subarray problem
- ~ Find minimum range with at-least one element from each of the given arrays
- ~ Find longest subsequence formed by consecutive integers
- ~ Find all elements in an array that are greater than all elements present to their right
- ~ Find missing number in array without using extra space
- ~ Determine index of an element in given array which satisfies given constraints
- ~ Find minimum moves required for converting a given array to an array of zeroes
- ~ Left rotate an array
- ~ Right rotate an array k times
- ~ Find maximum profit earned from at most two stock transactions
- ~ Find frequency of each element in a sorted array containing duplicates
- ~ Find minimum and maximum element in an array using minimum comparisons
- ~ Difference between subarray, subsequence and subset
- ~ Find odd occurring element in an array in single traversal
- ~ Find odd occurring element in logarithmic time
- ~ Find two odd occurring elements in an array without using any extra space

- ~ Check if given array represents min heap or not
- ~ Find kth smallest element in an array
- ~ Find kth largest element in an array
- ~ Sort a k-sorted array
- ~ Merge M sorted lists of variable length
- ~ Find smallest range with at-least one element from each of the given lists
- ~ Merge M sorted lists each containing N elements
- ~ Find maximum sum of subsequence with no adjacent elements
- ~ Find ways to calculate a target from elements of specified array
- ~ Sort elements by their frequency and index
- ~ Sort an array based on order defined by another array
- ~ Inversion count of an array
- ~ Segregate positive and negative integers in linear time
- ~ Find number of rotations in a circularly sorted array
- ~ Search an element in a circular sorted array
- ~ Find first or last occurrence of a given number in a sorted array
- ~ Count occurrences of a number in a sorted array with duplicates
- ~ Find smallest missing element from a sorted array
- ~ Find floor and ceil of a number in a sorted array
- ~ Search in a nearly sorted array in logarithmic time
- ~ Find number of 1s in a sorted binary array
- ~ Find missing term in a sequence in logarithmic time
- ~ Find missing number and duplicate elements in an array
- ~ Find the peak element in an array
- ~ Find floor and ceil of a number in a sorted array (recursive solution)
- ~ Print all distinct subsets of a given set
- ~ Find two duplicate elements in a limited range array (using XOR)

=> Linked list :

- ~ Introduction to linked lists
- ~ Linked list implementation
- ~ Linked list | insertion at tail
- ~ Static linked list
- ~ Clone given linked list
- ~ Delete linked list
- ~ Pop operation in linked list
- ~ Insert given node into the correct sorted position in the given sorted linked list
- ~ Rearrange linked list in increasing order (sort linked list)
- ~ Split the nodes of the given linked list into front and back halves
- ~ Remove duplicates from a sorted linked list
- ~ Move front node of the given list to the front of the another list
- ~ Move even nodes to the end of the list in reverse order
- ~ Split given linked list into two lists where each list containing alternating elements from it
- ~ Construct a linked list by merging alternate nodes of two given lists
- ~ Merge sort algorithm for singly linked list
- ~ Merge two sorted linked lists into one
- ~ Merge K sorted linked lists
- ~ Intersection of two given sorted linked lists
- ~ Reverse linked list (iterative solution)
- ~ Reverse linked list (recursive solution)
- ~ Reverse every group of k nodes in given linked list
- ~ Find kth node from the end in a linked list
- ~ Merge alternate nodes of two linked lists into the first list
- ~ Merge two sorted linked lists from their end
- ~ Delete every N nodes in a linked list after skipping M nodes
- ~ Rearrange linked list in specific manner in linear time
- ~ Check if linked list is palindrome or not
- ~ Move last node to front in a given linked list
- ~ Rearrange the linked list in specific manner
- ~ Detect cycle in a linked list (floyds cycle detection algorithm)
- ~ Sort linked list containing 0s, 1s and 2s
- ~ Implement stack using linked list
- ~ Implement queue using linked list
- ~ Remove duplicates from a linked list
- ~ Rearrange the linked list so that it has alternating high, low values
- ~ Rearrange a linked list by separating odd nodes from the even ones
- ~ Calculate height of a binary tree with leaf nodes forming a circular doubly linked list
- ~ XOR linked list: overview and implementation
- ~ Convert a multilevel linked list to a singly linked list
- ~ Recursively check if linked list of characters is palindrome or not
- ~ Remove redundant nodes from a path formed by a linked list
- ~ Add a single-digit number to a linked list representing a number
- ~ Reverse every alternate group of k nodes in a linked list
- ~ Sort a doubly linked list using merge sort
- ~ Reverse a doubly linked list
- ~ Pairwise swap adjacent nodes of a linked list
- ~ Flatten a linked list
- ~ Check if a linked list of string is palindromic
- ~ Swap kth node from beginning with kth node from end in a linked list
- ~ Add two linked lists without using any extra space

=> Matrix :

- ~ Print matrix in spiral order
- ~ Create spiral matrix from given array
- ~ Shift all matrix elements by 1 in spiral order
- ~ Find shortest path from source to destination in a matrix that satisfies given constraints
- ~ Change all elements of row i and column j in a matrix to 0 if cell (i, j) has value 0
- ~ Print diagonal elements of the matrix having positive slope
- ~ Find all paths from first cell to last cell of a matrix

- ~ Replace all occurrences of 0 that are not surrounded by 1 in a binary matrix
- ~ In-Place rotate the matrix by 90 degrees in clock-wise direction
- ~ Count negative elements present in sorted matrix in linear time
- ~ Report all occurrences of an element in row wise and column wise sorted matrix in linear time
- ~ Calculate sum of all elements in a sub-matrix in constant time
- ~ Find maximum sum $K \times K$ sub-matrix in a given $M \times N$ matrix
- ~ Find maximum sum submatrix present in a given matrix
- ~ Count the number of islands
- ~ Flood fill algorithm
- ~ Find shortest safe route in a field with sensors present
- ~ Find all occurrences of given string in a character matrix
- ~ Shortest path in a maze | lee algorithm
- ~ Check if given matrix is toeplitz matrix or not
- ~ In-Place rotate the matrix by 180 degrees

=> Backtracking

=> Bit manipulation

=> Binary tree

=> Binary search tree

=> Divide and conquer

=> Dynamic programming

=> Graph

=> Heap

=> Queue

=> Stack

=> Sorting

=> String

=> Trie

C Sharp Programming

Topic Name : PROGRAMMING

Sub-topic Name : C Sharp

Course link : <https://ineuron.ai/course/C-Sharp-Programming>

Course Description :-

Learn the fundamentals of C# programming.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Understanding .NET SDK CLI ,creatingbuilding & running first project.
- => Framework vs Language
- => C# is case sensitive and understanding compile errors in CLI.
- => Creating projects using visual studio
- => Project and Solution in visual studio
- => Building and compile using visual studio
- => Difference between C# and .NET
- => CLR
- => Architecture of .NET Framework
- => C# Operators
- => C# Operator Precedence & Associativity
- => C# Bitwise Operators
- => C# Arrays
- => C# Multidimensional Arrays
- => C# Inheritance
- => C# using
- => C# Type Conversion & Casting
- => C# Preprocessor Directives

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Curriculum details :-

- => Introduction :
 - ~ DownloadInstallation of .NET &.NET core vs .NET Framework
 - ~ Understanding .NET SDK CLI ,creatingbuilding & running first project.
 - ~ Framework vs Language
 - ~ C# is case sensitive and understanding compile errors in CLI.
 - ~ Introduction, Download and Installation of VS Code editor.
 - ~ Opening folder in VS code , intellisense and terminal.
 - ~ NET Compilation process & Intermediate language code
 - ~ Visual studio vs VS Code vs Visual studio for Mac
 - ~ Installing and configuring visual studio work loads part 1
 - ~ Installing and configuring visual studio work loads part 2
 - ~ Creating projects using visual studio
 - ~ Project and Solution in visual studio
 - ~ Building and compile using visual studio
 - ~ Running projects as startup
 - ~ Understanding basic code class, namespace and scopes
 - ~ Assembly , Exe and DLL Part 1
 - ~ Assembly , Exe and DLL Part 2

=> C# Introduction :

- ~ *Introduction*
- ~ *Difference between C# and .NET*
- ~ *CLR*
- ~ *Architecture of .NET Framework*
- ~ *C# Hello World*
- ~ *C# Keywords & Identifiers*
- ~ *C# Variables and Data types*
- ~ *Demo C# Variables*
- ~ *C# Operators*
- ~ *C# Operator Precedence & Associativity*
- ~ *C# Bitwise Operators*
- ~ *C# Basic IO*
- ~ *C# Expressions & Statements*
- ~ *C# Comments*

=> C# Flow Control :

- ~ *C# if...else*
- ~ *C# switch Statement*
- ~ *C# Ternary Operator*
- ~ *C# while Loop*
- ~ *C# for Loop*
- ~ *C# Nested Loops*
- ~ *C# break Statement*
- ~ *C# continue Statement*

=> C# Arrays :

- ~ *C# Arrays*
- ~ *C# Multidimensional Arrays*
- ~ *C# Jagged Array*
- ~ *C# foreach Loop*

=> C# OOP part 1 :

- ~ *C# Class and Objects*
- ~ *C# Methods*
- ~ *C# Access Modifiers*
- ~ *C# Variable Scope*
- ~ *C# Constructors*
- ~ *C# this Keyword*
- ~ *C# static Keyword*
- ~ *C# Strings*

=> C# OOP (II) :

- ~ *C# Inheritance*
- ~ *C# Abstract Class & Methods*
- ~ *C# Nested Class*
- ~ *C# Partial Class & Method*
- ~ *C# Sealed Class & Method*
- ~ *C# Interface*
- ~ *C# Method Overloading*
- ~ *C# Constructor Overloading*

=> Additional Topics :

- ~ *C# using*
- ~ *C# Type Conversion & Casting*
- ~ *C# Preprocessor Directives*
- ~ *C# Namespaces*
- ~ *C# struct*

Language Identification

Topic Name : DATA SCIENCE

Sub-topic Name : NLP PROJECT

Course link : <https://ineuron.ai/course/Language-Identification>

Course Description :-

This is an audio classification project in which we will use Pytorch for audio processing and CNN for audio classification. We will use Indian language audio data from four classes, Hindi, Tamil, Telugu, and Kannada, and predict the language spoken in the audio.

Course Features :-

- => Do Everything In Industry Grade Lab
- => Learn As Per Your Timeline
- => Hands-On Industry Real-Time Projects.
- => Self Paced Learning
- => Dashboard Access

What you will learn :-

- => Real Time Projects
- => Language Identification
- => Audio preprocessing steps to build
- => Train and evaluate Deep learning models in PyTorch
- => Creating custom PyTorch dataset and dataloader
- => Use convolution neural network for audio classification.
- => Modular coding approach for training and prediction pipeline
- => Building Flask App
- => Learn about GCP basics
- => CICD tool like Github Actions for deployment

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

=> Aravind S :

~ Data scientist with over a year of experience in developing advanced deep learning projects, core expertise in machine learning and NLP, proficient in data preprocessing and model building, and has closely mentored over 100 students from various domains.

Curriculum details :-

=> Welcome to the Course :

- ~ Course Overview
- ~ Dashboard Introduction

=> Project :- Language Identification :

- ~ Introduction of Instructor
- ~ Project Overview
- ~ End Notes
- ~ Problem Description
- ~ Understand the application scope
- ~ End Notes
- ~ Solution Description
- ~ Notebook Walkthrough
- ~ Tour to Architecture diagram
- ~ Cost involved
- ~ End Notes
- ~ Structure overview
- ~ Data Ingestion
- ~ Data Validation
- ~ Data Transformation
- ~ Model Training and Tuning
- ~ Model Evaluation
- ~ Model Pusher
- ~ Training Pipeline
- ~ Frontend app design
- ~ Tour to the cloud and Service Overview

- ~ IAM setup
- ~ GCP setup
- ~ Workflow
- ~ Adding Self hosted runner
- ~ Conclude the project
- ~ Points to improve from current project
- ~ Assignments & External Resources

Image Processing

Topic Name : K12

Sub-topic Name : CLASS10

Course link : <https://ineuron.ai/course/Image-Processing>

Course Description :-

In this hands-on course, You will learn how to filter, change, and edit images. You will also learn how to use OpenCV to perform various image processing tasks with hands-on practical experience. Students who complete this course will be able to apply what they have learned in this course to a variety of fields, including machine learning and artificial intelligence, machine and robotic vision, space and medical image analysis, and many more.

Course Features :-

- => Online Instructor-led learning
- => Practical Implementation
- => Integrate academic knowledge with tech
- => Real-time project
- => Live class recording
- => Doubt clearing
- => Assignment in all the module
- => Quiz in every module
- => Career Counselling
- => Completion certificate

What you will learn :-

- => Image processing
- => OpenCV
- => Scikit
- => Color space
- => Creating Basic Drawings
- => Advanced OpenCV
- => Projects

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Monal Kumar :

~ Monal Kumar is a data scientist and instructor working at iNeuron having 2+ years of total experience in both service and product-based organisations. He is specialised in Deep Learning, Computer vision and Image processing. Previously, he held positions as a support configurator at Wipro Technologies and as a Deep Learning researcher at Harptec Research. Offering the finest possible services to his clients. In addition to his primary job function, he is recognised for his creativity and ideas that change the nature of the existing problem.

Curriculum details :-

=> Course Introduction :

- ~ Welcome to image processing course
- ~ What you will learn from this course
- ~ Course pre-requisites
- ~ What is image processing?
- ~ Who is this course for?
- ~ What you will get from this course?
- ~ How to get access to course materials?
- ~ What career path you can follow after completion of this course?

=> Introduction to Image Processing :

- ~ What do you mean by image processing?
- ~ Why image processing is used?
- ~ What are images?
- ~ Fundamentals of images
- ~ What do you mean by pixel?
- ~ Image resolution
- ~ PPI and DPI
- ~ What is a bitmap image?

=> Compression :

- ~ *What is compression?*
- ~ *How compression is helpful?*
- ~ *Lossless compression*
- ~ *Lossy compression*
- ~ *Different format of images*

=> Color Spaces :

- ~ *What is a color spcaes*
- ~ *RBG color space explanation*
- ~ *XYZ color space*
- ~ *HSV/HSL*
- ~ *LAB color space*

=> Scikit image :

- ~ *Scikit image introduction*
- ~ *Uploading and Viewing an Image*
- ~ *Getting Image Resolution*
- ~ *Looking at Pixel Values*
- ~ *Converting Color Space*
- ~ *Saving an Image*

=> Creating Basic Drawings :

- ~ *Lines*
- ~ *Rectangles*
- ~ *Circles*
- ~ *Bezier Curve*
- ~ *Doing Gamma Correction*
- ~ *Rotating, Shifting, and Scaling Images*

=> Advanced OpenCV :

- ~ *Introduction to OpenCV*
- ~ *Blending two images*
- ~ *Changing brightness*
- ~ *Changing contrast*
- ~ *Adding Text to Images*
- ~ *Smoothing Images*
- ~ *Median Filter*
- ~ *Gaussian Filter*
- ~ *Bilateral Filter*
- ~ *Resizing images*
- ~ *Image Thresholding*
- ~ *Histogram Equalization*

=> Projects :

- ~ *Project 1: Creating a HDR with OpenCV*
- ~ *Project 2: Removing Green screen from an image with different background*

=> Summary :

- ~ *Course Outro*
- ~ *Future Scope of Image processing*

Manual Testing Kickstart

Topic Name : TESTING

Sub-topic Name : MANUAL TESTING

Course link : <https://ineuron.ai/course/Manual-Testing-Kickstart>

Course Description :-

The goal of this course is to learn the fundamental ideas and methods of Software Testing. Software testing Basics, SDLC Models, Waterfall, V, Spiral, and Agile model, STLC, Phases & Types of Testing, Black Box & White Box Testing, Smoke & Sanity Testing, Regression & Retesting will all be covered in the training. You will learn about, Test Planning, Test case identification & Creation, Test case execution, Bug Management, and Bug Tracking tools like Jira, and Test Reporting. MySQL for backend data validation will also be covered.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Assignments
- => Course completion certificate

What you will learn :-

- => Basics of Testing
- => Principles Of Testing
- => SDLC
- => Waterfall
- => Spiral
- => Test Estimation & Test Management
- => TestCase Development
- => Testing Types
- => Testing Techniques

Requirements :-

- => Knowledge of C++
- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Kiran Sahu :

~ QA Manager with 12+ years of professional experience, worked in Brands like Infosys, Delhivery, Mydala, Aurea, Jive, Crossover, Agama Solutions & OSTC, have experience of working in global platforms and with multinational professionals. Strong domain knowledge on Retail, Logistics, Banking, Trading, Ecommerce Applications. Experience in Training and Mentoring Candidates all across the globe on Software Testing, MySQL and Agile.

Curriculum details :-

=> Introduction to Manual Testing :

- ~ Basics of Testing
- ~ Principles Of Testing

=> Manual Testing :

- ~ SDLC
- ~ STLC SDLCvsSTLC
- ~ Waterfall
- ~ SoftwareTesting V
- ~ Spiral
- ~ Agile
- ~ Test Estimation & Test Management
- ~ TestPlan
- ~ TestCase Development
- ~ RTM

=> Manual Testing Phases :

- ~ Phases of testingUnitIntegration
- ~ Phases of testingSystem Testing
- ~ Phases of TestingUAT

=> Testing Types :

- ~ Types Of Testing SmokeandSanity
- ~ Types Of Testing Regression vs Retesting
- ~ Types Of Testing Func NonFunc Testing
- ~ Types Of Testing WhiteBox BlackBox Testing

=> Testing Techniques :

- ~ Testing Techniques Equivalence Partitioning And BVA
- ~ Testing TechniquesDecisionTable

=> Manual Testing MySQL :

- ~ Mysql create insertselect
- ~ Mysql orderby
- ~ Mysql groupby
- ~ Mysql wildcards
- ~ Mysql nullalter drop rename
- ~ Mysql limitddldmldcl
- ~ Mysql keys
- ~ Mysql definingKeys
- ~ Mysql join
- ~ Mysql subquery

Advance Computer Vision

Topic Name : DATA SCIENCE

Sub-topic Name : COMPUTER VISION

Course link : <https://ineuron.ai/course/Advance-Computer-Vision>

Course Description :-

Early and mid-career software and machine learning engineers with a fundamental understanding of computer vision who want to enhance their knowledge and skillset by studying advanced features to develop strong models can pursue this specialisation.

Course Features :-

- => Challenges
- => Quizzes
- => Assignments
- => Downloadable resources
- => Completion certificate

What you will learn :-

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Requirements :-

- => Basic knowledge of Python programming
- => A system with stable internet connection
- => Your dedication

Instructors :-

- => Sudhanshu Kumar :
 - ~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

- => CNN :
 - ~ CNN? Building An Intuition For CNN Preview
 - ~ CNN, Kernels, Channels, Feature Maps, Stride, Padding Preview
 - ~ Receptive Fields, Image Output Dimensionality Calculations, MNIST Dataset Explorations With CNN
 - ~ MNIST CNN Intuition, Tensorspace.js, CNN Explained, CIFAR 10 Dataset Explorations With CNN
 - ~ Custom Image Classification
 - ~ Forward And Back Propagation, LeNet
 - ~ AlexNet And VGGNet
 - ~ Unconvention & Pure CNNs, Inception
 - ~ InceptionV1, Inception V2 Continued, Batch Norm
 - ~ Inception
 - ~ Resnet Architecture
 - ~ Resnet Architecture
 - ~ Opencv
 - ~ Plant Disease Classification and Object Detection Intro
 - ~ Tensorflow Object Detection 1
 - ~ Tensorflow Object Detection 2
 - ~ Detectron 2 and Custom Training in Detectron 2
 - ~ Pytorch Basic and FashionMNIST
 - ~ Autograd | FashionMNIST | Transfer Learning
 - ~ Object Classification and Deployment on Heroku, AWS
 - ~ GCP, AWS, Packaging
 - ~ GPU Providers | AWS | GCP | Azure | Paperspace | DataCrunch | Floydhub
 - ~ Yolo
 - ~ Detectron 2 Segmentation | TF Segmentation
 - ~ Mask RCNN Using TF | Annotation of labelme | JSON to TF Records
 - ~ Mask RCNN
 - ~ Shredder Machine Project
 - ~ RCNN
 - ~ Face Recognition
 - ~ Face Recognition Code Discussion
 - ~ Fast RCNN
 - ~ Fast RCNN
 - ~ RPNN
 - ~ Project Discussion
 - ~ Detectron webapp
 - ~ Detectron2 web app

- ~ *Number plate detection project*
- ~ *SSD*
- ~ *Mask R-CNN*

Pro Backend Developer

Topic Name : WEB DEVELOPEMENT

Sub-topic Name : FULL STACK WEB DEVELOPMENT

Course link : <https://ineuron.ai/course/Pro-Backend-Developer>

Course Description :-

This course is titled pro for a reason. In this practical hands-on course, you will learn how to build complex backend applications that can be used for any web or mobile application. Your REST API will be in production with docs, social logins, images, authentications, mail and, much more. This is a true pro backend course.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => MongoDB
- => Heroku Cloud
- => Swagger
- => Authentication
- => File, image and form handling
- => MORGAN and razorpay
- => Configs and imports
- => Controllers and routes

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

=> Getting started :

- ~ Goal of this course and instructions
- ~ Tools for backend developer
- ~ MongoDB MAC install
- ~ MongoDB WIN install
- ~ MongoDB in cloud - Atlas
- ~ Mongo GUI - compass

=> Take it up to Heroku - Production :

- ~ Things you need to deploy on Heroku
- ~ Plan your application
- ~ Types of web request
- ~ Framework - Express, Koa, Hapi
- ~ Starting with package JSON file
- ~ Your first express app
- ~ Request Response and Status code
- ~ All social routes
- ~ Handle the date situation
- ~ Parameters and bugs in route
- ~ Pushing app to HEROKU
- ~ Debug social app in production

=> Swagger Docs :

- ~ What is swagger and api docs
- ~ Nodemon ext and YAML docs

- ~ Authentication token for swagger docs
- ~ Docs for HTTP methods swagger
- ~ A new documentation centric project
- ~ Setup information - swagger
- ~ Authentication and Authorization - swagger
- ~ String based GET request - swagger
- ~ handling objects - swagger
- ~ handling array in Swagger docs
- ~ Sending data in URL - swagger
- ~ managing request body in swagger
- ~ handle url query in swagger
- ~ handling images in swagger
- ~ handling header tokens in swagger

=> Authentication :

- ~ What we have done till section 3 - backend
- ~ Hiding secrets in backend
- ~ Picking up a database for backend
- ~ Why we need mongoose - ODM
- ~ Pro db modeling tools
- ~ Creating model for auth system
- ~ Creating basic structure for auth system
- ~ Creating user schema and dotenv
- ~ Registering a user in auth system
- ~ Database connection in auth system
- ~ What is a middleware
- ~ Handling password situation
- ~ What is JWT and creating token
- ~ Register route in auth app
- ~ Login flow for auth app
- ~ Web vs Mobile
- ~ Writing custom middleware
- ~ Setting up secure cookies

=> File, image and form handling :

- ~ Why people face issue in image upload
- ~ Cloudinary and EJS
- ~ How GET works and postman issues
- ~ Using template engines
- ~ Biggest confusion in front end forms
- ~ Handling images in forms
- ~ Handling images in forms part 2
- ~ upload image to cloudinary or other providers
- ~ Handling multiple files and uploading them

=> Theory and Razorpay :

- ~ File structure for production app
- ~ Getting a logger - MORGAN
- ~ Error handler and Promises
- ~ Sending emails using nodemailer
- ~ Why mongoose docs are important
- ~ Razorpay project
- ~ Razorpay front end integration

=> Big Ecommerce app starts :

- ~ Project requirement
- ~ User modeling and file structure
- ~ Product model discussion
- ~ Order Model discussion
- ~ How forgot password feature work
- ~ Functions in user model and hooks

=> Basic Config and imports :

- ~ Getting files and folders ready
- ~ Preparing basic express app
- ~ Routes and controllers in dummy
- ~ Injecting docs and middleware
- ~ Custom error handlers
- ~ The big Promise

=> User model and signup :

- ~ Creating a user model and validator
- ~ password encryption and mongoose prototypes
- ~ Validating the password
- ~ creating JWT tokens
- ~ forgot password and crypto hashing
- ~ User routes and postman
- ~ Signup a user and cookies
- ~ Database connection
- ~ Testing the user signup with postman
- ~ Handling image upload
- ~ Testing photo upload and user signup
- ~ yes, we know about postman files

=> User controllers and routes :

- ~ Login route and controller
- ~ logout controller and route
- ~ Send email from node
- ~ Forgot password controller
- ~ Reset password controller and routes
- ~ Middleware - injecting information

- ~ User dashboard controller and routes
- ~ Update the password for a user
- ~ Updating the user profile
- ~ User, admin, manager and more roles
- ~ Manager only routes
- ~ Admin get a single user
- ~ Admin can update any user
- ~ Admin can delete a user now

=> Working on Product Model :

- ~ Product middleware setup for routes
- ~ Product Model and refs
- ~ A long talk on URL replace and mongo operators
- ~ Creating a product
- ~ Where clause in search
- ~ Where clause Pager
- ~ Aggregation filter in Where Clause
- ~ Get all products with WHERE and pager
- ~ Debugging and testing of product add and get

=> More routes in Products :

- ~ Single product route
- ~ Update the product with photos
- ~ Delete a product and minor bug
- ~ Testing and debugging
- ~ Add a review
- ~ Delete a review and requested routes
- ~ Configure routes for reviews

=> Razorpay and Stripe :

- ~ Stripe Docs
- ~ Stripe controllers
- ~ Razorpay payments and order
- ~ Setup payment routes

=> Processing Orders :

- ~ Order model in action
- ~ Creating an order and BSON
- ~ Testing create order and routes
- ~ Populate fields in order
- ~ Order of routes is important
- ~ Updating the stock
- ~ Delete order and push to git
- ~ Pushing code to production server

=> OAuth and Social Logins :

- ~ Social login foundation and demo app
- ~ Consent screen and API keys
- ~ Why passport.js
- ~ Package installation
- ~ Home routes and EJS
- ~ Preparing routes for login
- ~ Showing consent screen of google
- ~ Getting information and email from google
- ~ Moving google data to database
- ~ Serialize and deserialize user
- ~ Protect the Home

DBT

Topic Name : BIG DATA

Sub-topic Name : TECH STACK

Course link : <https://ineuron.ai/course/DBT>

Course Description :-

DBT data build tool helps data teams work like software engineers, transform data and control the flow to ship trusted data, faster. DBT data build tool is an exciting tool in modern data manipulation, due to the shift from ETL to ELT in companies that rely on MPP databases in the cloud for example Snowflake, Redshift, Big query and others. this course will teach you the fundamentals of DBT data build tool. you will learn the structure of DBT data build tool and the main components.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Connect DBT to Snowflake or another database
- => Create SQL transformations that use consistent logic
- => Learn DBT Best Practices

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

- => MD Imran :
 - ~ Working as Data Scientist with experience in solving real world business problems across different domains.

Curriculum details :-

- => DBT :
 - ~ What is DBT Preview
 - ~ DBT Cloud Account Creation
 - ~ Intro to Data Build Tool- create your first project
 - ~ DBT New project part 1 Preview
 - ~ DBT New project part 2
 - ~ DBT New Project part 3
 - ~ Snowflake connection
 - ~ Git push
 - ~ Adding raw sources to dbt project part 1
 - ~ Adding raw sources to dbt project part 2
 - ~ How dbt compile queries
 - ~ How to Write custom schemas
 - ~ How to test and debug dbt models
 - ~ Change the materialization
 - ~ Package management and dbt hub

Talend

Topic Name : BIG DATA

Sub-topic Name : TECH STACK

Course link : <https://ineuron.ai/course/Talend>

Course Description :-

This Talend course will teach you how to use Talend Open Studio to make Big Data Integration easier. Top industry experts curate the Talend Big Data course. This course is based on a practical rather than a theoretical paradigm.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Introduction to Talend
- => Talend features
- => Install Talend open studio
- => Adding Lookup
- => Configuring lookup
- => Adding Database
- => Configuring db
- => sorting file
- => Joining datasources
- => Conditional based filtering

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Khushali Shah :

~ A data scientist having rich experience working with MNCs and start-ups in the field of data science and machine learning. She has expertise in Chatbot development for various domains & been developing professionally for 6+ years with diverse job history. She also had positions in software module development, web app development, functional designs, requirement gathering, client interaction, and server setup/admin & can help everywhere in the stack; she loves wearing multiple hats to an extent. She also believes in enhancing her skills by training and learning new things day by day.

Curriculum details :-

=> Course Introduction :

- ~ Syllabus overview
- ~ Introduction to Talend
- ~ Talend features
- ~ Install Talend open studio

=> Practical:- Data integration task :

- ~ Overview
- ~ Configuring job
- ~ Adding metadata
- ~ Adding Lookup
- ~ Configuring lookup
- ~ Adding Database
- ~ Configuring db
- ~ sorting file
- ~ Joining datasources
- ~ Conditional based filtering
- ~ Conditional based filtering implementation

Fivetran

Topic Name : BIG DATA

Sub-topic Name : TECH STACK

Course link : <https://ineuron.ai/course/Fivetran>

Course Description :-

In this course you will learn about Fivetran platform which allows for efficient collection of business processes and customer data from related applications, websites, and servers. The data collected is then transferred to other tools for analytics, marketing, and data warehousing purposes.

Course Features :-

- => Self-paced Recording
- => Assignment in all modules
- => Quiz in every module
- => Completion Certificate

What you will learn :-

- => Account management
- => Fivetran integrations
- => Salesforce connector

Requirements :-

- => A system with internet connection
- => Your dedication
- => Interest to learn

Instructors :-

- => MD Imran :
 - ~ Working as Data Scientist with experience in solving real world business problems across different domains.

Curriculum details :-

- => Fivetran :
 - ~ Introduction to Fivetran Preview
 - ~ How fivetran works Preview
 - ~ Fivetran integrations
 - ~ Getting started
 - ~ Pricing plans
 - ~ Account management
 - ~ Architecture
 - ~ Setup connectors part 1
 - ~ Setup connectors part 2
 - ~ Setup connectors part 3
 - ~ Data Transformations on Fivetran // ETL vs ELT
 - ~ Salesforce connector

Class 10 Biology

Topic Name : K12

Sub-topic Name : CLASS10

Course link : <https://ineuron.ai/course/Class-10-Biology>

Course Description :-

Biology is the study of life. It is the study of living organisms and how they interact with the environment. Biology recognizes the cell as the basic unit of life, genes as the unit of heredity and evolution as an engine which boosts the formation of new species. The study of life has helped in shaping the world. It has credible answers to why things happen in a scientific manner. iNeuron allows you to explore all the content from NCERT physics in a proper manner and flow.

Course Features :-

- => Self paced video session
- => Covered entire class 10th Biology syllabus
- => Solved questions chapter wise
- => Notes
- => Previous year solved questions

What you will learn :-

- => Entire NCERT Class 10th Biology Syllabus
- => Chapter wise solution with detailed explanation

Requirements :-

- => Computer with Internet Connectivity

Curriculum details :-

=> LIFE PROCESSES :

- ~ Nutrition & its types
- ~ Respiration
- ~ Transport
- ~ Excretion

=> CONTROL & COORDINATION :

- ~ I. Tropic movements in plants
- ~ II. Introduction of plant hormones
- ~ III. Control and co-ordination in animals
- ~ IV. Nervous system
- ~ V. Voluntary, involuntary and reflex action
- ~ VI. Chemical co-ordination
- ~ VII. Animal Hormones

=> HOW DO ORGANISMS REPRODUCE :

- ~ I. Reproduction in animals and plants (asexual and sexual)
- ~ II. Types / Modes of Reproduction
- ~ III. Safe sex vs HIV/AIDS
- ~ IV. Child bearing and womens health

=> HEREDITY & EVOLUTION :

- ~ I. Heredity
- ~ II. Mendels contribution- Laws for inheritance of traits
- ~ III. Basic concepts of evolution
- ~ IV. Evolution
- ~ V. Sex determination
- ~ VI. Speciation

=> OUR ENVIRONMENT :

- ~ I. Eco-system
- ~ II. Environmental problems
- ~ III. Ozone depletion
- ~ IV. Waste production and their solutions
- ~ V. Biodegradable and non-biodegradable substances

=> SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES :

- ~ I. Conservation and judicious use of natural resources
- ~ II. Forest and wild life
- ~ III. Coal and Petroleum conservation
- ~ IV. Big dams - advantages and limitations; alternatives
- ~ V. Harvesting of water
- ~ VI. Sustainability of natural resources

Tableau Foundation Course

Topic Name : DATA ANALYTICS

Sub-topic Name : TABLEAU

Course link : <https://ineuron.ai/course/Tableau-Foundation-Course>

Course Description :-

Tableau enables critical decision-makers to learn how to display data and uncover data patterns such as customer purchase behavior, sales trends, or production bottlenecks. This course will cover all of Tableau's capabilities that allow you to explore, experiment with, prepare, and present data fast and beautifully throughout an organisation, and we'll walk you through the entire process so you can make an impact and join the industry.

Course Features :-

- => Course Materials
- => Self Paced Learning
- => Lifetime Dashboard Access
- => Completion Certificate

What you will learn :-

- => Tableau desktop installation
- => Connecting Tableau with a variety of data sources, including excel and CSV files.
- => Creating interactive dashboard
- => Creating data stories
- => Generating business insights
- => Sorting, Filtering
- => Marks Card
- => Formatting in Tableau
- => Lines and Bands
- => Charts in Tableau

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

=> Dr Nishtha Jain :

~ I am a doctor by profession but a teacher by passion. I have been into the teaching profession for the last 3 years. I have been and am still a mentor for various courses which include technical as well as non-technical ones. These include MS-Excel, Tableau, Computer basics, Biology, English, etc. I love to learn, explore and share my knowledge to whatever extent possible. Being an ardent educator, I have always helped all my students and will continue to do the same.

Curriculum details :-

- => Introduction :
 - ~ Introduction - BI and Data Visualization
- => Tableau - Introduction and Architecture :
 - ~ Tableau suite and system requirements
 - ~ Tableau architecture and Why Tableau
 - ~ Tableau installation
- => Data in Tableau :
 - ~ Datatypes and Desktop UI
 - ~ Live vs Extract connection
 - ~ Dimensions, Measures, Continuous and Discrete
- => Sets in Tableau :
 - ~ Sets in Tableau
- => Sorting, Filtering :
 - ~ Sorting and Filtering
 - ~ Advanced filtering
- => Parameters :
 - ~ Parameters in Tableau
- => A few basics :

~ *Hide, Unhide, Rename, Copy, Split*

=> Groups, Folders and Hierarchies :

~ *Groups and Folders*

~ *Hierarchies*

=> Marks Card :

~ *Marks card, Part 1*

~ *Marks card, Part 2*

=> Views :

~ *Views in Tableau*

=> Highlighting :

~ *Highlighting in Tableau*

=> Formatting in Tableau :

~ *Formatting - Font*

~ *Formatting - Alignment, Shading*

~ *Formatting - Border, Lines, Fields, Title, Caption*

=> Lines and Bands :

~ *Reference lines, bands, distribution*

~ *Zero lines and Drop lines*

=> Tableau Worksheets :

~ *Working on worksheets*

=> Charts in Tableau - Part 1 :

~ *Charts' Introduction*

~ *Bar (Column) Charts*

~ *Pie Charts*

~ *Treemap*

~ *Packed bubbles*

=> Calculated fields :

~ *Calculated fields*

=> Charts in Tableau - Part 2 :

~ *Wordmaps or Wordclouds*

~ *Bins and Histogram*

~ *Line Charts*

~ *Scatter Plot*

~ *Text tables*

~ *Maps*

~ *Dual Axes charts, Part 1*

~ *Dual Axes charts, Part 2*

=> Aggregation and Granularity :

~ *Aggregation and Granularity*

=> Conditional formatting :

~ *Conditional formatting, Part 1*

~ *Conditional formatting, Part 2*

=> Charts in Tableau - Part 3 :

~ *Funnel chart and types*

~ *Gantt and Waterfall Charts*

~ *Donut and multiple Donut Charts*

~ *Calendar Chart*

~ *Dumbbell Chart*

=> Charts in Tableau Part - 4 :

~ *Animation charts*

~ *Heatmaps*

~ *Bullet graphs*

~ *Bump Chart*

=> Database Functions in Tableau :

~ *Database Functions in Tableau*

=> Box and Whisker Plot :

~ *Box and Whisker, Part 1*

~ *Box and Whisker, Part 2*

=> Table Calculations and Pareto :

~ *Table calculations*

~ *Running total and Pareto Chart*

=> Analytics Pane :

~ *Analytics pane 1*

~ *Analytics pane 2*

~ *Analytics pane 3*

=> Time Series and Forecasting :

~ *Time series analysis and Forecasting*

Node JS

Topic Name : WEB DEVELOPEMENT

Sub-topic Name : NODE JS

Course link : <https://ineuron.ai/course/Node-JS>

Course Description :-

Node.js is an open source, cross-platform runtime environment for developing server-side and networking applications. Node.js applications are written in JavaScript, and can be run within the Node.js runtime on OS X, Microsoft Windows, and Linux. It utilizes an event-driven, non-blocking I/O model that makes it lightweight, efficient and excellent for data-intensive real-time applications that run across shared devices.

Course Features :-

- => Lifetime Dashboard
- => Free Course
- => Certificate
- => Assignment
- => Quiz

What you will learn :-

- => Practical implementation of Node JS in real world
- => End to End concepts understanding

Requirements :-

- => Computer with Internet connectivity
- => Basic Programming understanding

Instructors :-

- => Keshav Singh :
- ~

Curriculum details :-

- => Introduction About Node JS :
 - ~ *Introduction Preview*
- => Internal Of Node JS (Hindi)
- => Why Node JS (Hindi)
- => My First Server in Node JS (Hindi)
- => Serving File based on Url Node JS - (Hindi)
- => Event Emitters in - Node JS | Hindi

SQL Projects

Topic Name : DATA ANALYTICS

Sub-topic Name : SQL

Course link : <https://ineuron.ai/course/SQL-Projects>

Course Description :-

SQL is utilised for a wide range of things, including banking, music, social media, data analysis, and so on. The majority of firms rely on huge, relational databases and are continually on the lookout for SQL experts. This course covers real world scenario based projects to gain hands-on knowledge and implement in real time to build business solutions.

Course Features :-

- => Project source codes
- => Quizzes
- => Assignments
- => Downloadable resources
- => Completion certificate

What you will learn :-

- => Start with Entity Relationship Model(ERM) logic.
- => Build stored procedure based on the business use case.
- => Database schema design

Requirements :-

- => Prior knowledge of SQL.
- => A system with internet connection.
- => Your dedication

Instructors :-

- => MD Imran :
 - ~ Working as Data Scientist with experience in solving real world business problems across different domains.

Curriculum details :-

- => Python database connectivity (MYSQL) :
 - ~ Installing mysql Preview
 - ~ Database connectivity part 1
 - ~ Database connectivity part 2
 - ~ Database connectivity part 3
 - ~ Database connectivity part 4
- => Bank management system :
 - ~ Bank management system flow chart Preview
 - ~ Bank management system part 2
 - ~ Bank management system part 3
 - ~ Bank management system part 4

30 days Fast Track Data Science Interview Preparation

Topic Name : DATA SCIENCE

Sub-topic Name : MACHINE LEARNING INTERVIEW

Course link : <https://ineuron.ai/course/30-days-Fast-Track-Data-Science-Interview-Preparation>

Course Description :-

This course is designed for an individual trying to transition towards various data science careers in the industry. Keeping all the hurdles in mind that we generally face during your transition so that your journey will be smooth and without losing any opportunity, you will be able to transition in the industry. Discuss, Collaborate, Participate and Win the Race.

Course Features :-

- => Online Instructor-led learning
- => Meet with Achiever
- => Proper Roadmap
- => One-One Resume Building
- => Lifetime Dashboard access
- => Doubt clearing
- => Quiz in every module
- => Career Counselling
- => Assessments
- => Mock Interview
- => Certificate
- => 850 + interview question live discussion
- => AI leader talk(panasonic , EY , Verizon, Apple , Nvidia and many)

What you will learn :-

- => Profile Building
- => System Designing
- => Domain Understanding
- => Common Mistakes
- => Project Management
- => ML Interview Questions
- => DL Interview Questions
- => NLP Interview Questions
- => Stats Interview Questions
- => Python Interview Questions
- => Computer Vision Interview Questions
- => Mock Interview

Requirements :-

- => Basic Understanding of Python
- => Basic Understanding of ML
- => Basic Understanding of DL

Instructors :-

=> krish naik :

~ Having 10+ years of experience in Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

=> Sudhanshu Kumar :

~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

- => Introduction about Data science industry and does and don't in your profile and public profile building with iNeuron team. :
 - ~ Induction & Course Introduction Preview
 - ~ Impact of Data Science in today's world & Roles in Data Science Preview
- => Meet with multiple people who has made recent transition :
 - ~ Ask anything

~ *Get suggestion and roadmap*

=> *Generic Project architecture design for interview :*

- ~ *How Project start in Industry?*
- ~ *Business Expectation*
- ~ *Data Sharing Agreement*
- ~ *Proof of Concept*
- ~ *Master Data Management*
- ~ *High Level Architecture Design*
- ~ *Low Level Architecture Design*
- ~ *Project Wireframe*
- ~ *Data Accusation*
- ~ *Code Level Architecture*
- ~ *Tech Identification*
- ~ *Team Building*
- ~ *Project Delivery Methodology*
- ~ *Project Timeline Calculation*
- ~ *Infrastructure Setup*
- ~ *Project Cost Estimation*
- ~ *Project Kickoff*

=> *Resume Design and projects by iNeuron one to one resume building :*

- ~ *Resume Template Selection*
- ~ *Tech Stack Involvement*
- ~ *Project Selection & Alignment as per your Experience*
- ~ *Project Details*
- ~ *Your Involvement in Project*
- ~ *Tech Stack for Project*
- ~ *Fine Tuning of your Resume*
- ~ *Proof Reading*
- ~ *LinkedIn & GitHub Update*
- ~ *Applying for Job*
- ~ *Resume Finalization based on Job Description*
- ~ *One to One Discussion with iNeuron Team*

=> *30+ Domain Project Design Discussion :*

- ~ *Why Architecture Discussion?*
- ~ *Supply chain*
- ~ *Finance*
- ~ *Banking*
- ~ *Automobile*
- ~ *Industrial Automation*
- ~ *Security and Safety*
- ~ *Surveillance*
- ~ *Logistics*
- ~ *HealthCare*
- ~ *Infra*
- ~ *Public Safety*
- ~ *Home Automation*
- ~ *Insurance*
- ~ *Customer relationship*
- ~ *Sales*
- ~ *Marketing*
- ~ *Agriculture*
- ~ *Robotics*
- ~ *Aviation*
- ~ *Transport*
- ~ *Drug Discovery*
- ~ *Tourism*
- ~ *Prosthetic*
- ~ *Warehouse*
- ~ *Aerospace*
- ~ *Cyber Security*
- ~ *Networking*
- ~ *Retail*
- ~ *Education*
- ~ *E-Commerce*
- ~ *Telecom*
- ~ *Oil and Gas*
- ~ *Manufacturing*
- ~ *HR*
- ~ *Operations*
- ~ *Sports*
- ~ *Media*

=> *Python interview question :*

- ~ *50 Interview Questions Day1*
- ~ *50 Interview Questions Day2*

=> *stats interview question :*

- ~ *60 Interview Questions Day1*
- ~ *60 Interview Questions Day2*

=> *Machine Learning interview question and solution design :*

- ~ *40 Interview Questions Day1*
- ~ *40 Interview Questions Day2*
- ~ *40 Interview Questions Day3*
- ~ *40 Interview Questions Day4*
- ~ *40 Interview Questions Day5*
- ~ *40 Interview Questions Day6*

~ 40 Interview Questions Day7

=> Deep Learning & Computer Vision interview question :

~ 40 Interview Questions Day1

~ 40 Interview Questions Day2

~ 40 Interview Questions Day3

~ 40 Interview Questions Day4

~ 40 Interview Questions Day5

=> NLP interview question :

~ 40 Interview Questions Day1

~ 40 Interview Questions Day2

=> project deployment and solution design life cycle interview question :

~ 50 Interview Questions Day1

~ 50 Interview Questions Day2

=> Mock interview with krish and sudhanshu one to one live/Offline :

~ Fact Check

~ All round Interview

~ Review

~ Feedback

~ Suggestions

=> Interaction with many achievers who has done a recent transition in data science on all level :

~ Interaction with Ineuron Achievers of all Ages

~ Ask Anything

~ Expert Advice

~ Doubt Clarification

=> AI leader talk(panasonic , EY , Verizon, Apple , Nvidia and many)

=> Final touch of everything for next journey and launch :

~ Check the JOSH!!!

JavaScript Fundamentals

Topic Name : WEB DEVELOPEMENT

Sub-topic Name : JAVASCRIPT

Course link : <https://ineuron.ai/course/JavaScript-Fundamentals>

Course Description :-

This course will help you to grab the fundamentals of JavaScript for web development.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Basics of JavaScript
- => What are JavaScript engines
- => Objects in JavaScript
- => Methods and objects in JavaScript
- => What is DOM?
- => New keyword in JavaScript
- => What is proto in JavaScript
- => How to Handle API in JavaScript

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

- => JavaScript Refresher :
 - ~ Welcome to JavaScript Course
 - ~ What are JavaScript engines
 - ~ What ES version of JavaScript is good for us
 - ~ Variable and datatypes in JavaScript
 - ~ Our first User Signup
 - ~ Operators in JavaScript Calculate discount
 - ~ Type and Operator precedence in JavaScript
 - ~ What are conditionals in JavaScript
 - ~ Logical conditional Login in JavaScript
 - ~ Ternary operator in JavaScript
 - ~ Switch for role-based access in JavaScript
 - ~ Coercion and falsy values in JavaScript
 - ~ Basics of functions in JavaScript
 - ~ Functions in variable User Role in JavaScript
 - ~ Understand the context in JavaScript
 - ~ Code hoisting in JavaScript
 - ~ Scope chaining in JavaScript
 - ~ Light intro to THIS in JavaScript
 - ~ Introduction to Array in JavaScript
 - ~ Callback and arrow function introduction in array
 - ~ Fill and Filter in Array in JavaScript
 - ~ Slice and Splice in JavaScript
 - ~ Objects in JavaScript
 - ~ Methods and objects in JavaScript
 - ~ For loop basics in JavaScript
 - ~ While and do while loops in JavaScript
 - ~ For Each loop in JavaScript
 - ~ For in and for of loop in JavaScript

- ~ Confusing part of *THIS* in JavaScript
- ~ What is DOM
- ~ How to grab web elements in JavaScript
- ~ A counter project in JavaScript
- ~ Get Computed properties in JavaScript
- ~ Event listener in JavaScript
- ~ New keyword in JavaScript
- ~ What is proto in JavaScript
- ~ Better code with object chain in JavaScript
- ~ Objects from MDN docs
- ~ Self-Executing Anonymous Function and functional programming
- ~ Lexical scoping in JavaScript
- ~ Closure in JavaScript
- ~ Borrow a method using bind
- ~ Get to know node Elements in JavaScript
- ~ Generating elements and Text node in DOM
- ~ Solution of Scope problem in JavaScript
- ~ Template literals in JavaScript
- ~ Maps in JavaScript
- ~ Destructure the data in JavaScript
- ~ Spread and REST operators in JavaScript
- ~ Classes and module exports in JavaScript
- ~ Private props getters and setters in JavaScript
- ~ Inheritance in JavaScript
- ~ Event loop Will JavaScript wait
- ~ Promise async and await in JavaScript
- ~ How to Handle API in JavaScript
- ~ Get to know game files
- ~ Logic of game JavaScript
- ~ Fixing the bug in game JavaScript
- ~ What is new in JavaScript 2021
- ~ Why iife appears in JavaScript interviews
- ~ Quirky Behavior of JavaScript

Salesforce Developer

Topic Name : SALESFORCE

Sub-topic Name : SALESFORCE DEVELOPER

Course link : <https://ineuron.ai/course/Salesforce-Developer>

Course Description :-

You may master the fundamentals of Salesforce programming in this Salesforce developer course. This tutorial gives you hands-on experience with Apex Programming, Triggers, and Form Building on the Visualforce website.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Apex
- => Collections
- => List Class and Method
- => Set Class and Methods
- => Select Option Class
- => SOQL (Object Query Language)
- => Outbound Email Services
- => Single Email Message
- => Sending Pdf attachment
- => Sending Email Template
- => Attaching VF page as an attachment
- => Attaching the Email to activities/li>
- => Trigger Events
- => Trigger Context variables
- => Insert Triggers
- => Trigger. New in before insert and after Insert .

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Curriculum details :-

- => Course Introduction :
 - ~ MVC Architecture
 - ~ Comparision of MVC to APPS
 - ~ OOPS Basics
 - ~ Lexical
 - ~ Tokens
 - ~ Identifiers
 - ~ Variables
 - ~ Data Types
 - ~ Methods
 - ~ Access Modifiers
 - ~ Comparission between Method/Function and Procedure
 - ~ Classes
 - ~ Creation of Variables
 - ~ Getter Methods
 - ~ Setter Methods
 - ~ Creation of Methods
 - ~ with Sharing
 - ~ With Out Sharing
 - ~ Creation of Objects

- ~ Reference Variables
- ~ Constructors
- ~ Class Scope
- ~ Static Variables
- ~ Static Methods
- ~ Static Blocks
- ~ Final Variables
- ~ Final Static Variables
- ~ Arrays
- ~ Advantages and Disadvantages of Arrays

=> Apex :

- ~ Collections
- ~ List Class and Method
- ~ Set Class and Methods
- ~ Select Option Class
- ~ SOQL (Object Query Language)
- ~ Group By/li>
- ~ Having
- ~ Limit
- ~ Parent to Child object Query
- ~ Child to Parent object Query
- ~ Aggregate Result
- ~ Compression of Database. Query and static query
- ~ Governing limits for SOQL
- ~ DML operations
- ~ Database. DML operations
- ~ Compression of DML with Database.DML
- ~ Database. Save Point
- ~ Database. Rollback operations
- ~ Inheritance in Class
- ~ Overriding classes
- ~ Working with workbench
- ~ Writing a test classes
- ~ SOQL Governing limit
- ~ DML governing limit

=> Email Services :

- ~ Outbound Email Services
- ~ Single Email Message
- ~ Sending Pdf attachment
- ~ Sending Email Template
- ~ Attaching VF page as an attachment
- ~ Attaching the Email to activities/li>
- ~ Creating a PDF from futur

=> Schedule Apex :

- ~ Implementing Schedule Apex
- ~ Cron Trigger
- ~ Invoking Batch Apex
- ~ Invoking Future Methods from Schedule Apex
- ~ Invoking the Callouts from Schedule Apex
- ~ Sending Email from Schedule Apex
- ~ Test Classes
- ~ Governing Limits

=> Triggers :

- ~ Trigger Events
- ~ Trigger Context variables
- ~ Insert Triggers
- ~ Trigger. New in before insert and after Insert .
- ~ DML in before insert and after Insert.

AWS Data Engineering

Topic Name : BIG DATA

Sub-topic Name : BIG DATA ON CLOUD

Course link : <https://ineuron.ai/course/AWS-Data-Engineering>

Course Description :-

Welcome to AWS Data Engineering. If you're new to the cloud, whether you're in a technical or non-technical role such as finance, legal, sales, and marketing, this course will provide an understanding of fundamental AWS Cloud concepts to help you gain confidence to contribute to your organization's cloud initiatives. This course is also the starting point to prepare for your AWS Certified Cloud Practitioner certification whenever it's convenient for you.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => What is EMR
- => EBS Hands On
- => VPC, Subnet, Internet Gateway & NAT Gateways

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Curriculum details :-

- => EMR :
 - ~ Why Cloud & Big Data on Cloud
 - ~ What is Virtual Machine
 - ~ On-Premise vs Cloud Setup
 - ~ Major Vendors of Hadoop Distribution
 - ~ Hdfs vs S3
 - ~ Important Instances in AWS
 - ~ Overview of EMR
 - ~ What is EMR
 - ~ Tez vs mapreduce
 - ~ Launching an emr cluster
 - ~ connecting to your cluster
 - ~ Create a tunnel for web ui
 - ~ Use Hue to interact with EMR
 - ~ Part 1 analyze movie ratings with hive on emr
 - ~ Part 2 analyze movie ratings with hive on emr
 - ~ Transient vs Long Running Cluster Running
 - ~ Copy File From S3 to Local Zeppelin Notebook
 - ~ How to Create a VM
 - ~ S3 & EBS
 - ~ Public ip Vs Private Ip
 - ~ Aws Command Line Interface
 - ~ What is Athena
 - ~ When do we require Athena What problem Athena Solve How Athena Works
 - ~ Athena Pricing
 - ~ Athena Practical Demonstration
 - ~ AWS Glue
 - ~ Introduction to Amazon Redshift
 - ~ Redshift Master Slave Architecture
 - ~ redshift demo
 - ~ redshift spectrum
 - ~ Redshift Distribution Styles
 - ~ Redshift Fault Tolerance
 - ~ Redshift Sort Keys
- => EC2 Instance Storage :
 - ~ EBS Overview
 - ~ EBS Hands On

- ~ *EBS Snapshots Overview*
- ~ *EBS Snapshots Hands On*
- ~ *AMI Overview*
- ~ *AMI Hands On*
- ~ *EC2 Image Builder Overview*
- ~ *EC2 Image Builder Hands On*
- ~ *EC2 Instance Store*
- ~ *EFS Overview*
- ~ *Shared Responsibility Model for EC2 Storage*
- ~ *Amazon FSx Overview*
- ~ *EC2 Instance Storage Summary*

=> VPC and Networking :

- ~ *VPC Overview*
- ~ *VPC, Subnet, Internet Gateway & NAT Gateways*
- ~ *Security Groups & Network Access Control List (NACL)*
- ~ *VPC Flow Logs & VPC Peering*

NLP Interview Questions

Topic Name : DATA SCIENCE

Sub-topic Name : NLP INTERVIEW

Course link : <https://ineuron.ai/course/NLP-Interview-Questions>

Course Description :-

If you are looking for a place to be prepared for your upcoming interviews in Natural Language Processing, then this course is for you. We will discuss all kinds of NLP-based questions that can be asked in an interview and, it will also help you in boosting your confidence. Artificial Intelligence Operations is the most in-demand technical skill (AIOps). It facilitates the use of DevOps techniques in the creation of AI products. This course will cover a variety of approaches to implementing AIOps methodology in machine learning and deep learning projects, including implementation on AWS, Azure, Google Cloud Platform, and DigitalOcean.

Course Features :-

- => Interview based question discussions
- => Completion certificate
- => Downloadable resources

What you will learn :-

- => Learn to solve and answer different NLP based Interview questions
- => Tackle any Interview
- => Project Pipeline Algorithm , Selection Building Solutions

Requirements :-

- => Prior knowledge in NLP
- => A System with internet connection
- => Your dedication

Instructors :-

=> Sudhanshu Kumar :

~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

- => Interview Questions :
 - ~ NLP Question Discussion part 1 Preview
 - ~ NLP Question Discussion part 2

PL SQL

Topic Name : DATABASE

Sub-topic Name : MYSQL

Course link : <https://ineuron.ai/course/PL-SQL>

Course Description :-

In this Oracle 11g PL/SQL course you will receive introduction training on PL/SQL database programming language covering syntax, structure and features of the language within the context of database applications and programming.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Introduction to PLSQL
- => Features and syntax of PL/SQL
- => Use PL/SQL programming constructs
- => Conditionally control code flow
- => Create overloaded package subprograms
- => Collections
- => Implicit and Explicit Cursors

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn
- => Basic SQL

Instructors :-

- => MD Imran :
 - ~ Working as Data Scientist with experience in solving real world business problems across different domains.

Curriculum details :-

- => PLSQL :
 - ~ Introduction Preview
 - ~ Installation Preview
 - ~ Basic Syntax part 1
 - ~ Basic Syntax part 2
 - ~ Data Types
 - ~ Variables part 1
 - ~ Variables part 2
 - ~ Literals
 - ~ Operators
 - ~ Conditions
 - ~ Loops
 - ~ Strings
 - ~ Arrays
 - ~ Procedures
 - ~ Functions
 - ~ Cursors Preview
 - ~ Records
 - ~ Exceptions
 - ~ Trigger
 - ~ Packages
 - ~ Collections
 - ~ Transactions
 - ~ Data Types
 - ~ DBMS output

Mern Stack Projects

Topic Name : WEB DEVELOPEMENT

Sub-topic Name : WEB DEVELOPMENT PROJECT

Course link : <https://ineuron.ai/course/Mern-Stack-Projects>

Course Description :-

Build Project with Full Stack Web Development using MERN. Build your MERN stack projects with ReactJS, Redux, Hooks and Context, NodeJS, express and MongoDB, real-time projects. Learn how to build a powerful and fully functional social media website using MERN.

Course Features :-

- => Project Build
- => Different ways to handle design
- => Async benefits
- => Quizzes
- => Assignments
- => Completion certificate

What you will learn :-

- => End to End Project Building
- => Starting of Project
- => Learn both Frontend & Backend
- => Testing
- => Deployment

Requirements :-

- => Prior Knowledge in MERN Stack
- => A system with a decent internet connection
- => Your dedication

Instructors :-

- => Syed Ashraf :
 - ~ Full Stack Engineer at TensorGo Technologies

Curriculum details :-

- => CRUD in MERN :
 - ~ *CRUD in MERN Preview*
- => Social Media Project :
 - ~ *Introduction*
 - ~ *Initial Setup*
 - ~ *Creating Routes & Controllers*
 - ~ *Setting up Redux*
 - ~ *Handling Forms*
 - ~ *Building Post's*
 - ~ *Adding Functionalities*
 - ~ *Authentication*
 - ~ *Deployment*

Artificial Intelligence for Kids

Topic Name : K12

Sub-topic Name : CLASS10

Course link : <https://ineuron.ai/course/Artificial-Intelligence-for-Kids>

Course Description :-

This course introduces the fundamentals of machine learning through the use of well-known Python programming languages. In this course, you will learn about machine learning and why machine learning came into reality. You will learn about various supervised and unsupervised learning algorithms to solve some real-world problems. Students who complete this course will gain hands-on practical experience in building various machine learning algorithms

Course Features :-

- => Online Instructor-led learning
- => Practical Implementation
- => Integrate academic knowledge with tech
- => Real-time project
- => Live class recording
- => Doubt clearing
- => Assignment in all the module
- => Quiz in every module
- => Career Counselling
- => Completion certificate

What you will learn :-

- => Introduction to Machine learning
- => Preprocessing data in Python
- => Bias and Variance
- => Data visualization
- => Linear regression
- => Logistic regression
- => K-means clustering
- => K-Nearest Neighbor
- => Projects

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Curriculum details :-

- => Course Introduction :
 - ~ Course overview
 - ~ Who is this course for?
 - ~ What you will learn from this course?
 - ~ Who is this course for?
 - ~ What are algorithms?
 - ~ What is Artificial Intelligence?
 - ~ Applications of machine learning
- => Introduction to learning :
 - ~ What is learning?
 - ~ History of AI (Artificial Intelligence)
 - ~ Different types of learning
 - ~ What is Machine Learning?
 - ~ What is Supervised learning?
 - ~ What is Unsupervised learning?
 - ~ Uses of AI and machine learning
- => Assignment1 :
 - ~ Describe the significance of machine learning.
- => Preparing your system :
 - ~ What is Google Colab?
 - ~ Google Colab overview

~ Understanding Colab interface

=> Python Revision :

- ~ Write a program to check whether the number is prime or not
- ~ Write a program to take input from user and check whether the number is greater than 60 or not.
- ~ Write a program to demonstrates OR operator will all possible Boolean values combinations
- ~ Write a function sumThree() which will take 3 parameters as input and return the sum of 3 numbers.
- ~ Assignment: Write a function sumTwo() which will take 2 parameters as input and return the sum of 2 number using default argument

=> Discussion :

- ~ Discussion: How to eliminate Repetitive tasks using Python?

=> Preprocessing data in Python :

- ~ Introduction to data preprocessing
- ~ Why do we need to process data
- ~ Python libraries for data processing
- ~ Gathering data
- ~ Numerical data
- ~ Categorical data
- ~ Cleaning data
- ~ Dealing with missing values
- ~ Understand correlation in data
- ~ Transforming features
- ~ Creating new features
- ~ Plotting data

=> Assignment2 :

- ~ Plot your class subjects and marks using bar graph

=> Introduction to machine learning :

- ~ How do humans learn
- ~ Teaching computers to learn like humans
- ~ Relation between human intelligence and artificial intelligence
- ~ Discussion: Comparing human learning with machine learning
- ~ Bias in data
- ~ Variance in data
- ~ Training, validating and testing

=> Assignment3 :

- ~ Explain high bias and high variance with supported examples

=> Machine Learning fundamentals :

- ~ Introduction to machine learning models
- ~ Introduction to Linear Regression
- ~ What is regression?
- ~ Linear regression intuition
- ~ What is classification?
- ~ Logistic regression introduction
- ~ Logistic regression intuition
- ~ Cost function of logistic regression
- ~ Introduction to unsupervised learning
- ~ K-means algorithm introduction
- ~ What is Random initialization?
- ~ Why random initialization is important?
- ~ Explain number of clusters.
- ~ K Nearest neighbor introduction
- ~ Working of KNN
- ~ Pros and Cons of KNN

=> Practical :

- ~ Practical: Forecast your father's income using linear regression
- ~ Practical: Classify whether a student will get a job or not using logistic regression
- ~ Practical: Predict grades of students using KNN

=> Summary :

- ~ Course Outro
- ~ Future Scope of Machine Learning

Blockchain Foundations

Topic Name : BLOCKCHAIN

Sub-topic Name : BLOCKCHAIN MASTERS

Course link : <https://ineuron.ai/course/Blockchain-Foundations>

Course Description :-

Presenting the blockchain community session where students will learn the fundamentals of Blockchain Technology along with Solidity programming fundamentals with hands-on practical problems. Learners will learn to build their own cryptocurrency after completion of this community session

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Introduction to blockchain
- => Ethereum and Solidity
- => Solidity
- => Create your Cryptocurrency Project

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Sanjeevan Thorat :

~ Data Scientist and Blockchain developer, with experience in developing and managing end to end solutions. I have hands-on experience in Python Programming Language, Machine Learning Deep Learning and Natural language processing. Blockchain development experience in smart contracts, Decentralised Finance applications, DAOs, NFTs and Oracles running on Ethereum and Polygon blockchains. I have worked with various clients for different industry projects in the blockchain space. I specialize in building smart contracts on the Ethereum blockchain along with JavaScript integration for enhancing user experience to generate maximum returns on investment.

Curriculum details :-

=> Introduction to blockchain :

- ~ What is Blockchain
- ~ History of Blockchain
- ~ Bitcoin Blockchain in depth

=> Ethereum and Solidity :

- ~ History Ethereum Blockchain
- ~ Ethereum Blockchain in depth
- ~ Creating a blockchain from scratch in Javascript

=> Solidity :

- ~ What is Solidity
- ~ Solidity basics
- ~ Smart contract fundamentals
- ~ Payable functions
- ~ Fallback functions
- ~ View functions
- ~ Pure functions
- ~ Function overloading
- ~ Function overriding
- ~ Solidity Events
- ~ Block and Transaction details
- ~ Solidity Inheritance
- ~ Single Inheritance
- ~ Multiple Inheritance
- ~ Heirarchical Inheritance
- ~ Multilevel Inheritance
- ~ Abstract Contracts
- ~ Solidity Interfaces
- ~ Solidity Libraries

=> Project :

~ *Creating a cryptocurrency with ICO in Solidity from scratch*

DOMO BI

Topic Name : DATA ANALYTICS

Sub-topic Name : DASHBOARDING

Course link : <https://ineuron.ai/course/DOMO-BI>

Course Description :-

Upskill your analytics skills through the power of DOMO BI Platform. Digital metrics, such as lead analytics, web traffic, Web Analytics, etc would be very much useful for a particular business and that can be achieved by learning this analytical platform. You will be able to enhance your skill by exploring this DOMO BI Analytical platform.

Course Features :-

- => Live-Class Recording
- => Assignment in all modules
- => Quiz in every module
- => Completion Certificate

What you will learn :-

- => DOMO BI Features
- => DOMO BI Pricing
- => DOMO BI & Analytics
- => DOMO BI connectors
- => Dashboard
- => creating report
- => creating Dashboard

Requirements :-

- => No prior knowledge in Analytics
- => System with Internet Connection
- => Interest to learn
- => Basic knowledge of BI
- => Dedication

Instructors :-

=> Khushali Shah :

~ A data scientist having rich experience working with MNCs and start-ups in the field of data science and machine learning. She has expertise in Chatbot development for various domains & been developing professionally for 6+ years with diverse job history. She also had positions in software module development, web app development, functional designs, requirement gathering, client interaction, and server setup/admin & can help everywhere in the stack; she loves wearing multiple hats to an extent. She also believes in enhancing her skills by training and learning new things day by day.

Curriculum details :-

=> DOMO BI Introduction :

- ~ Overview Preview
- ~ Features of DomoBI Preview
- ~ DomoBI Analytics
- ~ DomoBI Pricing
- ~ DomoBI Connectors
- ~ Dashboard Overview

=> City Bike Project Analysis :

- ~ Project Overview
- ~ Loading Data
- ~ Start station
- ~ Trip duration
- ~ Gender
- ~ Sharing card
- ~ Dashboards
- ~ Alerts

Data Structure and Algorithm Projects

Topic Name : DATA STRUCTURE

Sub-topic Name : ADVANCED DSA

Course link : <https://ineuron.ai/course/Data-Structure-and-Algorithm-Projects>

Course Description :-

Algorithms Programming is a must-have skill in the field of software development. Learners have to analyse and construct algorithms for finding, sorting, and indexing data, as well as create trees and graphs and deal with intractability. Industry-level projects that will help you upscale your skills for handling and managing real-world projects.

Course Features :-

- => Project source code
- => Covering multiple domains
- => Interview questions
- => Downloadable resources
- => Completion certificate

What you will learn :-

- => Create efficient algorithms
- => Assess the complexity of the time and memory
- => Architecture design
- => Solution design
- => Tech stack integration
- => Software development

Requirements :-

- => Detailed knowledge of Data Structure and Algorithms
- => Knowledge of Python programming language.
- => A system with internet connection.
- => Your dedication

Instructors :-

=> Priya Bhatia :

~ Expertise in data structure competitive programming and solving analytical problems and implementing data structure algorithm in multiple programming language. I have done my M.Tech in Artificial Intelligence at IIT Hyderabad and have an experience of implementation in multiple projects.

Curriculum details :-

=> URL Shortener :

- ~ Introduction & understanding of the Algorithm behind the project
- ~ Preview
- ~ Implementation

=> Data Structure Implementation: BFS and DFS :

- ~ Introduction & understanding of the Algorithm behind the project
- ~ Implementation

=> Topological Sorting of Graph :

- ~ Introduction & understanding of the Algorithm behind the project
- ~ Implementation

=> Phone Directory Application :

- ~ Introduction & understanding of the Algorithm behind the project
- ~ Implementation

Mastering DSA with Python

Topic Name : DATA STRUCTURE

Sub-topic Name : DSA WITH PYTHON

Course link : <https://ineuron.ai/course/Mastering-DSA-with-Python>

Course Description :-

This Python course on Data Structures and Algorithms covers data structures such as linked lists, stacks and queues, binary search trees, heaps, searching, and hashing. This course covers a variety of sorting algorithms, as well as their implementation and analysis. The following topics are covered with Python implementation in this Data Structures in Python course. Analysis of Algorithms, Big O notation, Time Complexity, Singly Linked List, Doubly linked list, Trees, Heaps, Hashing and Sorting algorithms.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Problem Solving
- => Data Structure Introduction
- => Recursion in depth
- => Linked List in depth
- => Circular Linked List in Depth
- => Doubly Linked List in Depth
- => Stack and Queue
- => Binary Search Tree
- => Hashing
- => AVL Tree
- => HEAP
- => Sorting algorithms

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

- => Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

- => Introduction to DSA :
 - ~ Why we need Data structures and algorithms
 - ~ Time based approach
 - ~ Concept of Big O and graphs
 - ~ Data Structures and Algorithms HB
- => Problem Solving :
 - ~ Start with a challenge - reverse string
 - ~ Reverse a string - solution
 - ~ Interview approach to solve a problem
 - ~ Classic interview steps for DSA problems
- => Data Structure Introduction :
 - ~ Memory process - Stack and Heap
 - ~ Physical and logical data structures
 - ~ Abstract Data Types - ADT
- => Recursion in depth :

- ~ Introduction to recursion
- ~ Tracing the recursion tree
- ~ Trace tree assignment
- ~ Trace tree solution
- ~ Types of Recursion
- ~ Complex recursion tree
- ~ What is Factorial
- ~ Factorial program in Python
- ~ Fibonacci series THEORY
- ~ Fibonacci series and its version Python Code
- ~ What is Power Program
- ~ Power Program Python code
- ~ What is a Combination Program
- ~ Combination Program Python code
- ~ Classic Tower of Hanoi problem
- ~ Classic Tower of Hanoi Python code

=> Linked List in depth :

- ~ Introduction to Linked List
- ~ Add value in linked list - cases
- ~ Push Append and insert in LinkedList - Python code
- ~ Deletion of linked list THEORY.
- ~ Deletion in linked list Python code
- ~ Delete complete linked list Python code
- ~ Count all nodes in linkedlistPython code
- ~ Reversing a linked list THEORY
- ~ Reversing a linked list Python code

=> Circular Linked List in Depth :

- ~ Circular linked list THEORY
- ~ Circular Linked List push Python code
- ~ Traverse a circular linked list Python code
- ~ Deletion in circular linked list Python code
- ~ count nodes in circular linked list Python code
- ~ convert linked list to circular linked list Python code

=> Doubly Linked List in Depth :

- ~ Theory for doubly linked list
- ~ Doubly linked list push Python code
- ~ Insert After in doubly linked list Python code
- ~ add to last in doubly linked list Python code
- ~ Traverse a doubly linked list Python code
- ~ Deleting a node in doubly linked list Python code

=> Stack and Queue :

- ~ Stack - Push and Pop operation THEORY
- ~ Stack operations with Python code
- ~ Queue concept THEORY
- ~ Queue implementation in Python code
- ~ Circular queue THEORY
- ~ Circular queue Python code

=> Binary Search Tree :

- ~ What is Binary Search tree and creation THEORY update
- ~ Insertion and Deletion in BST THEORY
- ~ InOrder Traversal of BST THEORY
- ~ Pre Order traversal in BST THEORY
- ~ Post order traversal in BST THEORY
- ~ Creating a Binary Search tree Python code
- ~ Insertion in BST Python code
- ~ deletion of key in BST Python code
- ~ inorder preorder and postorder traversal in BSTPython code

=> Hashing :

- ~ What is Hashing THEORY
- ~ Hash chaining with linked list
- ~ Linear Hash Shifting
- ~ Square hash shifting

=> AVL Tree :

- ~ What is AVL tree and height
- ~ Finding balance factor
- ~ Left Left and Right Right Rotation in AVL Tree
- ~ LR and RL rotation with 1 trick
- ~ Creating a AVL tree - Important
- ~ Deletion in AVL Tree.

=> HEAP :

- ~ Heap - Max and min Heap
- ~ Insertion and deletion in HEAP

=> Sorting algorithms :

- ~ Categories of sorts
- ~ Selection sort - Theory
- ~ Selection sort - Python Code
- ~ Bubble Sort - Theory
- ~ Bubble Sort - Python Code
- ~ Insertion sort - Theory
- ~ Insertion sort - Python Code
- ~ Quick Sort - Theory
- ~ Quick Sort - Theory part 2

- ~ Quick Sort - Python Code
- ~ Counting Sort - Theory
- ~ Merge Sort Theory
- ~ Merge sort Python code
- ~ Counting Sort - Python Code

Job Ready Automation Tester with JavaScript Tech Neuron

Topic Name : TESTING

Sub-topic Name : AUTOMATION TESTING

Course link : <https://ineuron.ai/course/Job-Ready-Automation-Tester-with-JavaScript-Tech-Neuron>

Course Description :-

In this live training program, you will be learning everything about Automation using different tools and libraries. We will be starting with JavaScript from the scratch (from zero) and will be automating Web Applications and API's as well. This course includes most of leading tools and framework like Cypress, Playwright, WebDriverIO with different libraries and integration with Chai, Mocha, JEST, Git, Github, Github Actions, Docker and Jenkins (CI-CD). After this course you will be ready to attend interviews and will be able to automate different Web Applications.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => What are JavaScript engines
- => What is Automation
- => What is Automation Testing
- => Cypress Architecture
- => Selenium vs Cypress - Comparison
- => What is API and why API testing is important
- => REST vs SOAP
- => Playwright Explorer
- => Assertion in details with page and element
- => Async vs Sync
- => Locators In WDIO
- => Xpath in detail

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Mukesh Otvani :

~ Myself Mukesh Otvani having 10 years of experience in Automation Testing and worked with Dell International and SAP Labs India. I am also passionate teacher, mentor, have been into teaching for 8 years now and running a YouTube channel with 137000 subscribers and 480+ videos on different tools and libraries.

Curriculum details :-

=> JavaScript :

- ~ What are JavaScript engines
- ~ What ES version of JavaScript is good for us
- ~ Variable and datatypes in JavaScript
- ~ Operators in JavaScript
- ~ Type and Operator precedence in JavaScript
- ~ What are conditionals in JavaScript
- ~ Ternary operator in JavaScript
- ~ Switch in JavaScript
- ~ Coercion and falsy values in JavaScript
- ~ Basics of functions in JavaScript
- ~ Functions in variable User Role in JavaScript
- ~ Understand the context in JavaScript
- ~ Hoisting in JavaScript
- ~ THIS in JavaScript

- ~ Introduction to Array in JavaScript
- ~ Callback and arrow function introduction in array
- ~ Fill and Filter in Array in JavaScript
- ~ Slice in JavaScript
- ~ Objects in JavaScript
- ~ Methods and objects in JavaScript
- ~ For loop basics in JavaScript
- ~ While and do while loops in JavaScript
- ~ For Each loop in JavaScript
- ~ For in and for of loop in JavaScript
- ~ Template literals in JavaScript
- ~ Maps in JavaScript
- ~ Classes and module exports in JavaScript
- ~ Private props getters and setters in JavaScript
- ~ Inheritance in JavaScript
- ~ Promise async and await in JavaScript

=> Automation Foundation :

- ~ What is Automation
- ~ What is Automation Testing
- ~ Advantages of Automation Testing
- ~ When to start and when to stop Automation
- ~ What not to automate and why
- ~ Type Of Automation
- ~ Tools for Automation Testing
- ~ Which tool to select for Automation
- ~ POC before selecting any Automation Tools
- ~ Automation Mindset
- ~ How to switch from Manual to Automation

=> Cypress :

- ~ What is Cypress - Advantage and Limitations
- ~ Cypress Architecture
- ~ Selenium vs Cypress - Comparison
- ~ Downloading and Installing Cypress
- ~ Quick tour of Cypress Test Runner and configuration files
- ~ What is Testing Framework In JavaScript and why do we need Testing Framework
- ~ Testing Frameworks - Mocha, Jasmine, Jest, Karma
- ~ What is Mocha and features of Mocha Framework
- ~ Mocha Structure
- ~ Writing test suites using mocha framework using Describe and Context
- ~ Exclusive test in mocha using .only .skip
- ~ Hooks In Mocha before, beforeEach, after, afterEach
- ~ What is Chai (Assertion Library)
- ~ Mocha with Chai
- ~ Chai assertions using Should
- ~ Chai assertions using Expect
- ~ Chai assertions using Assert
- ~ Write your first Cypress Test - Electron
- ~ Difference between Cypress and cy
- ~ Executing Cypress Test On Chrome
- ~ Executing Cypress Test On Firefox
- ~ Executing Cypress Test On Edge
- ~ Logs In Cypress
- ~ ViewPort In Cypress
- ~ Browser Navigation Commands In Cypress - Back, Forward, Reload
- ~ Cypress Default Assertions for each command
- ~ How to verify urls, title In Cypress
- ~ Cypress Inspector to locate element
- ~ How to use SelectorsHub with Cypress
- ~ Locators In Cypress
- ~ How to write Xpath - Static Xpath, Dynamic Xpath, Xpath Axes, Xpath tricks
- ~ How to Write CSS Selectors in details
- ~ Get method vs Find methods vs Contains methods
- ~ Cypress defaults check before interacting with WebElements
- ~ Type method in detail and assertions
- ~ Type In Cypress with text content
- ~ Type In Cypress with Keyboard Events
- ~ Type In Cypress with force
- ~ Type In Cypress with timeout
- ~ Click in Cypress using locators
- ~ Click in Cypress using coordinates
- ~ Click in Cypress using positions
- ~ Click multiple elements
- ~ How to click when element is hidden or disabled
- ~ Click In Cypress with timeouts
- ~ Click with Key combination - Example - Control + Click, Shift + Click
- ~ How to Interact with Textbox and assertion
- ~ How to Interact with Buttons and assertions
- ~ How to Interact with Checkbox, Radio Buttons and assertions
- ~ How to work with disabled elements
- ~ How to work with hidden elements
- ~ Handling Single Select Dropdown and assertion
- ~ Select values from dropdown using Index
- ~ Select values from dropdown using value
- ~ Select values from disabled dropdown
- ~ Select values from hidden dropdown
- ~ Deselection of dropdown
- ~ How to Select values from Non Select Dropdowns- Bootstrap, AngularJS dropdown etc

- ~ Handle AutoSuggestions In Cypress
- ~ Handle Calendar Control In Cypress
- ~ How to capture and verify error messages in Cypress
- ~ Wait in Cypress
- ~ Pause in Cypress
- ~ Debug in Cypress
- ~ Difference between wait() vs pause() vs debug()
- ~ How to handle multiple webelements - Arrays of WebElements
- ~ Use of next(),last(),first(),eq()
- ~ Keyboard Events In Cypress Example- enter, ESC, alt , delete etc
- ~ Mouse Hover In Cypress using invoke
- ~ Mouse Hover In Cypress using trigger
- ~ Verifying values after mouse hover
- ~ DoubleClick in Cypress using locators
- ~ DoubleClick in Cypress using cordinates
- ~ DoubleClick in Cypress using positions
- ~ How to DoubleClick when element is hidden or disabled
- ~ DoubleClick In Cypress with timeouts
- ~ DoubleClick with Key combination - Example - Control + Click, Shift + Click
- ~ RightClick in Cypress using locators
- ~ RightClick in Cypress using cordinates
- ~ RightClick in Cypress using positions
- ~ How to RightClick when element is hidden or disabled
- ~ RightClick In Cypress with timeouts
- ~ RightClick with Key combination - Example - Control + Click, Shift + Click
- ~ Drag and Drop In Cypress
- ~ Handle Alert Box In Cypress
- ~ Handle Prompt Box In Cypress
- ~ Handle Confirmation Box In Cypress
- ~ Handle Frames in Cypress
- ~ Handle Child tabs in Cypress
- ~ Handle Shadow DOM in Cypress
- ~ How to handle file upload in Cypress
- ~ How to handle file downloads in Cypress
- ~ What is plugins in Cypress and List of plugin in Cypress
- ~ How to use plugin in Cypress
- ~ How to create custom commands in Cypress
- ~ What is Cypress CLI
- ~ How to execute single test from CLI
- ~ How to execute multiple test from CLI
- ~ How to change browser from CLI
- ~ Generating HTML Reports Using Cypress
- ~ Capture videos and screenshots In Cypress
- ~ Running Test in headless mode
- ~ Fixtures in Cypress
- ~ Page Object Model In Cypress
- ~ Framework Implementation
- ~ Cypress Dashboard Service
- ~ Cypress Parallel Test
- ~ How to run Cypress Test on Cloud using BrowserStack
- ~ Push your code from local to github
- ~ Github pull request process
- ~ Creating Branches and merge branches
- ~ What is Jenkins
- ~ Setting Up Jenkins with Email Configurations
- ~ Running cypress test from Jenkins CI
- ~ Creating Jenkins Pipelin for Cypress Test Execution
- ~ What is Github Actions
- ~ Executing Cypress Test using Github Actions

=> API Automation Using Cypress :

- ~ What is API and why API testing is important
- ~ REST vs SOAP
- ~ Status Code
- ~ API term and keyword before starting API Testing
- ~ Write First API Test Using Cypress
- ~ How to make Post API request
- ~ How to make Put API request
- ~ How to make Patch API request
- ~ How to make Delete API request
- ~ Difference between put and patch
- ~ What is Swagger and how to use Swagger
- ~ JSON Object
- ~ JSON Array
- ~ Nested JSON Object Nested JSON Array
- ~ How to verify response
- ~ Handle Authentication and Authorization In Cypress
- ~ Cypress Interview Questions
- ~ Cypress Cheatsheet
- ~ Soure Code
- ~ Automating multiple application

=> Playwright :

- ~ What is Playwright and Features of playwright
- ~ Playwright Architecture
- ~ Selenium Vs Playwright
- ~ Cypress vs Playwright
- ~ Download Node.J and Configure on windows
- ~ Download and Install Visual Code

- ~ Installation of Playwright
- ~ Understanding Playwright folder structure
- ~ Execute sample test from Playwright
- ~ Execute sample test from Playwright in headed mode
- ~ Understanding Configuration file
- ~ Execute test in specific browser
- ~ Locators In Playwright
- ~ Text based search
- ~ Based on CSS
- ~ Find by test-id
- ~ Find multiple web elements
- ~ Filter locators
- ~ Type into elements with text
- ~ Type into elements with keyboard events
- ~ Type into elements with delay
- ~ Type into elements with force
- ~ Click using locator
- ~ Click using coordinates
- ~ Click using positions
- ~ Click with force
- ~ Click with keyboard events
- ~ Capture error message and assert in different ways
- ~ Difference between `textContent()` and `allTextContent()`
- ~ Why `await` does not apply to `allTextContent()`
- ~ Check and Uncheck
- ~ Disable WebElements
- ~ Hidden WebElements
- ~ Selecting values from dropdown using index
- ~ Selecting values from dropdown using value
- ~ Selecting values from dropdown using text
- ~ Deselecting values from dropdown
- ~ Debug from CLI
- ~ Debug from code
- ~ Playwright Inspector
- ~ Step By Step Execute / Resume Execution
- ~ Check logs for each activity
- ~ Playwright Explorer
- ~ Assertion in details with page and element
- ~ Assertion for elements to be checked /unchecked
- ~ Assertion for elements to be disabled / enabled
- ~ Assertion for elements to be Editable
- ~ Assertion for elements to be visible / invisible
- ~ Assertion for text contains
- ~ Assertion for class contains
- ~ Assertion for attribute contains
- ~ URL Assertions
- ~ Title Assertions
- ~ Negating Assertions
- ~ Soft Assertions
- ~ How to deal with multiple web elements
- ~ How to handle calendar controls
- ~ How to handle autosuggestions
- ~ How to handle flaky test
- ~ How to handle waits in Playwright
- ~ What is `AutoWaiting` In Playwright
- ~ Condition checked in `AutoWait`
- ~ Why Playwright fails even after `AutoWait`
- ~ Add `waitFor` condition
- ~ Different `waitFor` conditions for pages and locators
- ~ Modify existing wait timeout for expect and locators
- ~ What is Promise in Playwright
- ~ How to handle `Promise.all`
- ~ Handle multiple tabs in playwright
- ~ How to handle frames in playwright
- ~ Handle alert window in playwright
- ~ `pause` method in playwright
- ~ How to generate report in Playwright
- ~ Attach screenshot in report for each step, on failure
- ~ How to generate pdf in Playwright
- ~ What is codegen
- ~ How to record and play your test in codegen
- ~ Analyse test recorded by codegen
- ~ Execute auto generated scripts from codegen
- ~ Drawbacks of auto generated scripts from codegen
- ~ Mouse Hover events in Playwright
- ~ Keyboard Events in Playwright
- ~ Handle Drag and Drop In Playwright
- ~ How to handle Shadow Dom
- ~ How to change view port in Playwright
- ~ How to emulate devices in Playwright
- ~ How To Perform Visual Testing Using Playwright
- ~ What is Playwright fixture
- ~ Browser Fixture
- ~ Page Fixture
- ~ Context Fixture
- ~ Request Fixture
- ~ What is Playwright Annotations and how to use them
- ~ `test.skip()`

- ~ test.fail()
- ~ test.slow()
- ~ test.only()
- ~ What is Trace Viewer In Playwright
- ~ How To Generate trace for single test
- ~ How To Generate trace for multiple test
- ~ How To analyse trace debugging
- ~ Different flags for tracing
- ~ What is Cross Browser Testing
- ~ How to perform cross browser test in Playwright -sequence
- ~ How to perform cross browser test in Playwright in parallel
- ~ Apply Retry options to execute test again
- ~ What is Test Tagging and how to add tags to your test
- ~ Group of Testcases
- ~ What is design pattern
- ~ What is POM - Page Object Model
- ~ Implement POM in Playwright
- ~ Why not to provide static data in test script
- ~ How to pass test data from json file
- ~ Data Driven Test In Playweight
- ~ What is Git and Github
- ~ Push your code from local to github
- ~ Github pull request process
- ~ Creating Branches and merge branches
- ~ What is Jenkins
- ~ Setting Up Jenkins with Email Configurations
- ~ Running Playwright test from Jenkins CI
- ~ Creating Jenkins Pipelin for Playwright Test Execution
- ~ What is Github Actions
- ~ Executing Playwright Test using Github Actions
- ~ Playwright Interview Questions
- ~ Playwright Cheatsheet
- ~ Soure Code
- ~ Automating multiple application

=> WebdriverIO :

- ~ What is WebDriverIO - WDIO
- ~ Why WebdriverIO
- ~ Selenium vs WDIO
- ~ Cypress vs WDIO
- ~ Playwright vs WDIO
- ~ Components of WDIO
- ~ Service offered by WDIO
- ~ Download Node.J and Configure on windows
- ~ Download and Install Visual Code
- ~ Install WDIO
- ~ Folder Structur
- ~ Configuration file
- ~ What is WDIO test runner
- ~ Execute the sample test
- ~ Reports in WDIO - Different Reporters
- ~ Different CLI commands
- ~ Write first WDIO script in Chrome
- ~ Write first WDIO script in Firefox
- ~ Write first WDIO script in Edge Browser
- ~ Verify URL and title
- ~ Async vs Sync
- ~ Locators In WDIO
- ~ Xpath in detail
- ~ CSS in detail
- ~ What is \$ and \$\$ and when to use and differences
- ~ How to intereact with Webelements
- ~ Handle textbox
- ~ Handle Button
- ~ Handle Links
- ~ Handle radio button and chekboxes
- ~ Handle Dropdown
- ~ How to handle non select dropdown
- ~ Handle autosuggestion
- ~ Handle Calendar
- ~ Verify element states
- ~ REPL Interface
- ~ Handle Shadow DOM
- ~ RightClick
- ~ Double Click
- ~ MouseHover
- ~ ScrollIntoView
- ~ Drag and Drop
- ~ Default matcher
- ~ Page Matcher
- ~ Element Matchers
- ~ waitFor Conditions in WDIO
- ~ waitUntil
- ~ waitForEnabled
- ~ waitForDisplayed
- ~ How to handle frames
- ~ How to handle alerts
- ~ How to handle different tabs/windows
- ~ How to include and exclude test in WDIO

- ~ *Capture Screenshots in WDIO*
- ~ *Retry failed testcases in WDIO*
- ~ *HTML Report in WDIO*
- ~ *PDF In WDIO*
- ~ *Allure Reports*
- ~ *TestData In WDIO*
- ~ *Passing different CLI flags from cmd*
- ~ *Cross Browser Testing In WDIO*
- ~ *Sequential Execution In WDIO*
- ~ *Parallel Execution In WDIO*
- ~ *Hooks In WDIO*
- ~ *before,beforeSuite,beforeHook, beforeTest,beforeCommands*
- ~ *after,afterSuite,afterHook,afterTest,afterCommand*
- ~ *What is design pattern*
- ~ *What is POM - Page Object Model*
- ~ *Adding Custom Commands*
- ~ *Implement POM in WDIO*
- ~ *Why not to provide static data in test script*
- ~ *How to pass test data in WDIO*
- ~ *What is Git and Github*
- ~ *Push your code from local to github*
- ~ *Github pull request process*
- ~ *Creating Branches and merge branches*
- ~ *What is Jenkins*
- ~ *Setting Up Jenkins with Email Configurations*
- ~ *Running Playwright test from Jenkins CI*
- ~ *Creating Jenkins Pipeline for WDIO Test Execution*
- ~ *What is Github Actions*
- ~ *Executing WDIO Test using Github Actions*
- ~ *WDIO Interview Questions*
- ~ *WDIO Cheatsheet*
- ~ *Source Code*
- ~ *Automating multiple application*

DART

Topic Name : MOBILE DEVELOPEMENT

Sub-topic Name : DART

Course link : <https://ineuron.ai/course/DART>

Course Description :-

Dart is a programming language designed for client development, such as for the web and mobile apps. It is developed by Google and can also be used to build server and desktop applications. Dart is an object-oriented, class-based, garbage-collected language with C-style syntax.

Course Features :-

- => Be able to program in Dart professionally
- => Master the Dart programming language by learning every concepts
- => Be able to build fully fledged apps with flutter(using dart)
- => Learn to use modern frameworks like Flutter in future

What you will learn :-

- => Learn Dart from scratch to Classes & Objects
- => A step towards build mobile apps
- => Learn how to write control flow statements
- => Learn how to compile and debug the code
- => Learn all the basics without stopping after then: Dive deeply into Flutter & Dart and become an advanced developer

Requirements :-

- => No prior experience in anything required.

Instructors :-

- => Syed Ashraf :
 - ~ Full Stack Engineer at TensorGo Technologies

Curriculum details :-

- => Introduction & Starting it up :

- ~ Introduction Preview
- ~ Installation
- ~ Setting it up
- ~ Comments
- ~ Programming Flow

- => Data Types :

- ~ Variables Preview
- ~ String Basics
- ~ Operators
- ~ Var Data Type

- => Collections :

- ~ Lists
- ~ Sets
- ~ Maps

- => Control Flow Statements :

- ~ If-Else
- ~ Loops
- ~ Other Loops
- ~ Break & Continue
- ~ Switch Case

- => Objects :

- ~ Functions
- ~ Classes & Objects

- => Extra :

- ~ Error Handling
- ~ Packages

AWS Sagemaker

Topic Name : DATA SCIENCE

Sub-topic Name : MACHINE LEARNING

Course link : <https://ineuron.ai/course/AWS-Sagemaker>

Course Description :-

Well groomed knowledge of the complete AWS Machine Learning ecosystem is required and SageMaker is one of the Most Important component of it. This course includes real world Projects which enables you to learn and solidify your concept on SageMaker.

Course Features :-

- => Self-Paced Classes
- => Real-time Project
- => Assignment in all modules
- => Quiz in every module
- => Completion Certificate

What you will learn :-

- => Learn about various Algorithms like XgBoost ,Deep AR , Linear Learner , Factorization Machines on SageMaker
- => Learn To Deploy custom Machine Learning Algorithms on SageMaker
- => Learn To implement Real world Machine Learning Problem on SageMaker
- => Learn To do Hyper Parameter Tuning on SageMaker

Requirements :-

- => Prior knowledge in AWS
- => Little bit of Machine Learning knowledge
- => An AWS account

Instructors :-

- => MD Imran :
 - ~ Working as Data Scientist with experience in solving real world business problems across different domains.

Curriculum details :-

- => AWS Sagemaker :
 - ~ Introduction Preview
- => General overview of sagemaker :
 - ~ Introduction to AWS Sagemaker Preview
 - ~ Instance Types
 - ~ Build in algorithm
 - ~ Ground Truth and NEO
 - ~ Different API Levels
- => Prerequisite of Sagemaker :
 - ~ Making S3 Bucket
 - ~ Spinning Jupyter Notebook in Sagemaker part 1
 - ~ Spinning Jupyter Notebook in Sagemaker part 2
- => Basic of implementing ML Model on Sagemaker :
 - ~ Sagemaker ML Model Overview
 - ~ Sagemaker NEO
 - ~ Sagemaker Security
- => Amazon SageMaker to build, train, and deploy a machine learning (ML) model :
 - ~ Demo part 1 Preview
 - ~ Demo part 2
 - ~ Demo part 3
- => Object Detection :
 - ~ Intro to object detection
 - ~ Downloading Data
 - ~ Model Building and Training

Django Course

Topic Name : WEB DEVELOPEMENT

Sub-topic Name : DJANGO

Course link : <https://ineuron.ai/course/Django-Course>

Course Description :-

The most widely used Python web development framework is Django. Django is a Python framework that covers all elements of web development, from handling requests and answers to creating dynamic HTML pages using templates and making database access and maintenance simple. This course has it all baked in, and it's all covered in excellent depth. Django is taught from the ground up in this course. We'll start from the beginning and work our way up, learning how to construct Django projects, execute them, and add functionality step by step.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Webpages in Django
- => Admin control
- => Sliders
- => Search fields
- => Navbars
- => Components
- => User authentication
- => Facebook and Google authentication
- => Django message frameworks
- => Django contact forms

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

- => Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

- => Getting Started with Tubers :
 - ~ What we will build
 - ~ Introduction to application
 - ~ Preparation work for full stack app
 - ~ Moving into virtual environment
 - ~ Django Installation for tubers app
 - ~ Install postgresql and PGAdmin
 - ~ Django postgresql config and bugs
- => Django Admin Customization :
 - ~ Django superuser
 - ~ Theming options for django admin
 - ~ Our new theme for django admin
 - ~ Full customization of Django admin
 - ~ Deploying static files
- => Web pages in Django app :
 - ~ creating web pages app

- ~ Handling webpages routes
- ~ Advantages of using templates in django
- ~ loading the base template
- ~ adding static CSS and JS files
- ~ Making project modular in django
- ~ Home page is all set

=> Admin control of slider :

- ~ Creating model for slider
- ~ Adding slider from admin
- ~ passing data to web page
- ~ Fetching values in front end and assignment

=> Team section and admin :

- ~ Team model and registration in admin
- ~ Admin customization for Team
- ~ Read some django docs to edit admin
- ~ Team section in front end
- ~ Assignment for team section

=> YouTubers section on Home Page :

- ~ Creating a youtuber app
- ~ Model for youtubers
- ~ Restricting user choices
- ~ Add youtubers from admin
- ~ Admin modification for youtubers
- ~ Featured youtubers on front end
- ~ Latest onboard section

=> Youtubers component :

- ~ Fixing the navbar
- ~ youtubers views preparation
- ~ Tubers component in front end
- ~ fetching single tuber detail
- ~ Fetching formatted description

=> Search fields in Django :

- ~ Keyword based search
- ~ Search component on home page
- ~ Exact search feature in django

=> Authentication of users :

- ~ Creating accounts app and setting views
- ~ Configure templates
- ~ header changes for login and register
- ~ Messages and registering a user
- ~ Safety nets for registration of user
- ~ login feature of tubers app
- ~ Django decorators and authentication
- ~ FB and Google authentication
- ~ create a new Facebook app
- ~ Final check for FB login

=> Django messages framework and more :

- ~ Messaging framework
- ~ Fixing remaining navbar
- ~ Adding about and contact page

=> Contact form in Django :

- ~ a new hiretuber app
- ~ creating a model for the form
- ~ Handling views for contact form
- ~ Form front end part 1
- ~ Form front end part 2 and debugging

=> Assignments for you :

- ~ assignments for you

Django

Topic Name : WEB DEVELOPEMENT

Sub-topic Name : DJANGO

Course link : <https://ineuron.ai/course/Django>

Course Description :-

Django is a Python-based web framework. You'll be developing and learning about Django one step at a time in this course. We'll go through all you need to know about using Python, Django and other web technologies to create a website.

Course Features :-

- => Quizzes
- => Assignments
- => Hands-on practicals
- => Downloadable resources
- => Completion certificate

What you will learn :-

- => Django overview
- => Project implementation
- => Project deployment

Requirements :-

- => Basic knowledge of Python programming
- => A system with stable internet connection
- => Your dedication

Instructors :-

=> Khushali Shah :

~ A data scientist having rich experience working with MNCs and start-ups in the field of data science and machine learning. She has expertise in Chatbot development for various domains & been developing professionally for 6+ years with diverse job history. She also had positions in software module development, web app development, functional designs, requirement gathering, client interaction, and server setup/admin & can help everywhere in the stack; she loves wearing multiple hats to an extent. She also believes in enhancing her skills by training and learning new things day by day.

Curriculum details :-

=> Introduction :

~ Overview Preview

=> Django core :

- ~ Django features Preview
- ~ Creating a project
- ~ The development server
- ~ Creating the Polls app
- ~ Write your first view
- ~ `path()` argument: route
- ~ `path()` argument: view
- ~ `path()` argument: name

MERN Stack Beginner to Advance with Internship

Topic Name : WEB DEVELOPEMENT

Sub-topic Name : FULL STACK WEB DEVELOPMENT

Course link : <https://ineuron.ai/course/MERN-Stack-Beginner-to-Advance-with-Internship>

Course Description :-

This is a MERN stack live mentor led certification program along with full time 6 months internship provided by iNeuron intelligence private limited, where you will learn all the stack required to work in MERN, hosting including cloud technologies and real time industry project and product development along with iNeuron product development team and you will contribute on various level with iNeuron .

Course Features :-

- => Online Instructor-led learning: Live teaching by instructors
- => Every week doubt clearing session after the live classes
- => Lifetime Dashboard access
- => Doubt clearing one to one
- => Assignment in all the module
- => Quiz in every module

What you will learn :-

- => HTML
- => CSS
- => Javascript
- => Diving deep in core JS
- => Exploring Functional nature of JS
- => JSX in Depth
- => MongoDB
- => Node.js
- => Databases in Node.js
- => NoSql databases
- => File Handling
- => Building a Full fledge e-commerce application
- => Socket API
- => Testing in Node

Requirements :-

- => Dedication
- => PC with i3 processor and internet connectivity

Instructors :-

- => Keshav Singh :
- ~

Curriculum details :-

- => Course Introduction :
 - ~ Overview of whole course
 - ~ Roadmap
 - ~ How to make most from this course
 - ~ Prerequisite
- => HTML :
 - ~ Introduction to HTML
 - ~ Different types of elements
 - ~ Container elements
 - ~ Handling forms in HTML
 - ~ Diving Deep in HTML
 - ~ DOM
 - ~ Performance and Optimisations
- => CSS :
 - ~ Selectors in CSS
 - ~ Diving into Basics
 - ~ Positioning of Elements
 - ~ Understanding Background Images and Simple Images
 - ~ Sizes and Units

- ~ Applying CSS to our Portfolio website
- ~ Flexbox
- ~ Grids in CSS
- ~ Making our Portfolio website responsive
- ~ Animations
- ~ Implementing animations into our Portfolio website

=> Javascript :

- ~ Introduction to JS
- ~ Types in JS
- ~ Coercion
- ~ Diving deep into basics
- ~ Hoisting
- ~ Scopes and Closure
- ~ Lexical Scope
- ~ Prototypes in JS
- ~ Async nature of JS
- ~ How JS controls the webpage
- ~ Events
- ~ Event Loop in JS
- ~ AJAX
- ~ Different types of interfaces such as File, Blob, FormData, etc
- ~ Animations using JS

=> Diving deep in core JS :

- ~ Functions
- ~ Different types of Functions
- ~ Closures in Deep
- ~ This binding
- ~ Objects
- ~ Synchronous and Asynchronous JS
- ~ Iterators
- ~ Generators
- ~ Promises
- ~ Async and Await

=> Exploring Functional nature of JS :

- ~ Pure Functions
- ~ Higher Order Functions
- ~ Immutability
- ~ Point free code style

=> Introduction To React and Why to use React Today :

- ~ Why JSX
- ~ How React Works under the hood
- ~ Components (Stateful and Stateless component)
- ~ Conditional Rendering
- ~ Lifecycle Hooks of Components in React
- ~ Handling Events and What is synthetic events in react
- ~ Abstraction Layer of React
- ~ Handling Forms

=> Introduction to some JS new features :

- ~ Spread Operator
- ~ Arrow Function
- ~ Rest Parameters
- ~ Higher Order Functions
- ~ Closures
- ~ Block Level Scoping(let and const)
- ~ How to share logic between Components by different methods
- ~ Render Props
- ~ Higher Order Components
- ~ Context Api
- ~ Hooks (An Introduction to it here)
- ~ JSX in Depth

=> Some More JS new features :

- ~ Callbacks
- ~ Promises
- ~ Async and Await
- ~ Iterators and Iterables
- ~ Generators
- ~ Introduction to Asynchronous tasks and how to handle it in JS world
- ~ Handling error using promises and Error Boundaries in React
- ~ State Management in React using Context Api and Redux
- ~ Diving Deep in Redux and making a loose version of Redux from scratch.
- ~ Getting Redux Thunk and Redux Saga

=> Handling Forms :

- ~ Validating the form values in synchronous and asynchronous way
- ~ Displaying Error
- ~ Routing in React
- ~ Protecting Routes and redirecting as needed
- ~ Deep Dive in React Router Library and get our feet wet with it
- ~ Fragments, Profilers and deep dive in Virtual DOM.
- ~ Optimizing our React Application
- ~ Reconciliation algo in react
- ~ Diving Deep in React Hooks
- ~ More Optimizing the React Apps using Hooks
- ~ Code Splitting and making our app more fast

=> MongoDB :

- ~ Understanding the basics and CRUD operations
- ~ Schemas and Relations
- ~ Exploring the Shell and the server
- ~ Understanding the MongoDB compass and setting it for our project
- ~ Read Operations diving deep
- ~ Create Operations diving deep
- ~ Understanding Indexes
- ~ Understanding Aggregation
- ~ Handling security

=> Node.Js :

- ~ How Node.js works
- ~ Request and Response Mechanism in node
- ~ Redirecting based on some condition

=> Introduction to Express :

- ~ Diving Deep in some Express concepts
- ~ Express Middlewares and why it is important
- ~ Building our custom middlewares
- ~ Understanding some of middlewares such as body-parser and cors and its uses.
- ~ Introduction to Server Side Validations
- ~ Express validators and its uses.
- ~ Writing our custom validator (synchronous and asynchronous)
- ~ Handling errors while validation

=> Introduction to session management in Node. :

- ~ How to manage session using cookies and jwt(json web token)
- ~ Introduction to express-session

=> Handling Dynamic Routes in Node :

- ~ How to fetch Query Parameters and Params in Node
- ~ Redirection based on url
- ~ Absolute and Relative path handling using build in Node module
- ~ Introduction to streams
- ~ How Node is based on streams and how to work with it
- ~ Readable and Writable Streams
- ~ Process and Subprocess in Node
- ~ Multithreading in Node

=> Handling Databases in Node.js :

- ~ First, Mysql Database
- ~ Using mysql library we build mysql database
- ~ Using sequelize library for handling mysql database
- ~ Introduction to NoSql databases
- ~ Using MongoDB as a NoSql database
- ~ Using mongoose package
- ~ Templating Engines in Node.js
- ~ Introduction to EJS and handlebars
- ~ Handling errors and flash messages in this

=> Handling File Uploads in node.js :

- ~ Handling One file upload and then multiple files uploads
- ~ Using package multer for this.
- ~ Introduction to socket api and understanding how to real time application

=> Testing in Node :

- ~ Testing in Node
- ~ Unit Testing in Node

Project details :-

=> HTML :

- ~ Building a simple Portfolio website skeleton

=> CSS :

- ~ Building a Blog applications Frontend using above discussed concepts

=> Javascript :

- ~ Building a Todo Application using JS
- ~ Building a Snake Game using core JS

=> Exploring Functional nature of JS :

- ~ Refactoring our Todo Application in Functional style

=> Introduction To React and Why to use React Today. :

- ~ Building a Tic Tac Toe game over the concepts given above

=> Introduction to some JS new features :

- ~ A Hangman Application

=> Some More JS new features :

- ~ Building a TODO Application using the above concepts

=> Handling Forms :

- ~ Building a React Quiz Platform using Hooks
- ~ Stating our main project that is a e-commerce application.
- ~ Building authentication using firebase.
- ~ Persisting the session on the client
- ~ Making different parts of the app in sync

=> MongoDB :

- ~ Transactions and implementing this in our own project

=> Node.Js :

~ Building a simple multipage application using Node.js

=> Introduction to Express :

~ Re-writing our Part 4 project using express

~ Building a TODO Application using Node.js and building the server side validations as well

=> Introduction to session management in Node :

~ Making a user authentication using all the above concepts such as express-session, express-validator and middlewares

=> Handling Databases in Node.js :

~ Building a Basic Info Management System using No Sql

~ Building a TODO Application using ejs

=> Handling File Uploads in node.js :

~ Building a Resume Reader System using node

~ Building a Full fledged e-commerce application

~ Handling Payments in this

~ Error Handling

~ Making a chatting application like whats app

C++ Job Preparation

Topic Name : PROGRAMMING

Sub-topic Name : C++

Course link : <https://ineuron.ai/course/C++-Job-Preparation>

Course Description :-

C++ Interview-ready course has been created specifically to familiarize you with the types of questions you may encounter during the interview. This course is for the people who want to prepare for their interview after learning all the initial concepts & theories with Project Building. After completing this course, you will be confident enough to crack any discussion related to C++.

Course Features :-

- => Challenges
- => Downloadable resources
- => Quizzes
- => Assignments in each module
- => Completion certificate

What you will learn :-

- => Tackle difficult interview questions
- => Present projects in interview
- => Create application
- => Distribution
- => Packaging
- => Architecture design
- => Bug testing
- => Modular coding
- => Object-oriented programming STL (Structured Template Library) for competitive programming.

Requirements :-

- => Prior knowledge of C++ language
- => A system with internet connection.
- => Dedication

Instructors :-

=> Umang Pincha :

~ Data Warehouse/Business Intelligence Developer @ Amdocs & a Competitive Programmer. He is also having a good knowledge in C , C++ , Data Structure , Python , ML I can easily make websites on it and have done PG in Machine Learning and Artificial Learning from NIT, WARANGAL

Curriculum details :-

=> Essentials and Fundamentals :

- ~ What is the difference between new/delete and malloc/free? Preview
- ~ What is the difference between new and malloc? Preview
- ~ What is the difference between delete and delete[]?
- ~ What is difference between malloc()/free() and new/delete?
- ~ What is the difference between "new" and "operator new"?
- ~ What is Memory alignment?
- ~ Is there a way to force new to allocate memory from a specific memory area?
- ~ How does free know the size of memory to be deleted.?
- ~ int *i = (int *)malloc(12); followed by free(i); how did free function call know how much of memory to delete?
- ~ How do I allocate multidimensional arrays using new ones?
- ~ Can I free() pointers allocated with new? Can I delete pointers allocated with malloc()?
- ~ Why should I use new instead of trustworthy old malloc()?
- ~ Can I use realloc() on pointers allocated via new?
- ~ Do I need to check for NULL after p = new Fred()?
- ~ How can I convince my (older) compiler to automatically check new to see if it returns NULL?
- ~ Do I need to check for NULL before deleting p?
- ~ What are the two steps that happen when I say delete p?
- ~ In p = new Fred(), does the Fred memory "leak" if the Fred constructor throws an exception?
- ~ How do I allocate/deallocate an array of things?
- ~ What if I forget the [] when deleting the array allocated via new T[n]?
- ~ Can I drop the [] when deleting an array of some built-in type (char, int, etc.)?
- ~ After p = new Fred[n], how does the compiler know there are n objects to be destructed during delete[] p?
- ~ Is it legal (and moral) for a member function to say delete this?
- ~ C++ Basics & Conditional Statements
- ~ How do you link a C++ program to C functions?
- ~ Is there anything you can do in C++ that you cannot do in C?

- ~ What are the differences between a struct in C and in C++?
- ~ What does `extern "C" int func(int *, Foo)` accomplish?
- ~ What are the access privileges in C++? What is the default access level?
- ~ How does C++ help with the tradeoff of safety vs usability?
- ~ What are the benefits of operator overloading?
- ~ What are some examples of operator overloading?
- ~ But operator overloading makes my class look ugly; isn't it supposed to make my code clearer?
- ~ Can I overload operator`==`, so it lets me compare two `char[]` using a string comparison?
- ~ Can I create an operator`**` for "to-the-power-of" operations?
- ~ Okay, that tells me the operators I can override; which operators should I override?
- ~ What are some guidelines / "rules of thumb" for overloading operators?
- ~ Base Class Pointer & Derived Class Object
- ~ What is a dangling pointer?
- ~ What is Memory Leak?
- ~ What is an auto pointer?
- ~ What issue do `auto_ptr` objects address?
- ~ What is a smart pointer?
- ~ Is there any problem with the following : `char*a=NULL; char& p = *a;`
- ~ What is the difference between a pointer and a reference?
- ~ What is the difference between `const char *myPointer` and `char *const myPointer`?
- ~ When should I use references, and when should I use pointers?

=> String :

- ~ How to convert an integer to a string?
- ~ Programs related to string.

=> OOPS :

- ~ Is it possible to have a Virtual Constructor? If yes, how? If not, why not possible? Is it possible to have Virtual Destructor? If yes, how? If not, Why not possible?
- ~ What is a constructor or ctor?
- ~ What is the difference between a copy constructor and an overloaded assignment operator?
- ~ Can a constructor throw an exception? How to handle the error when the constructor fails?
- ~ What is a default constructor?
- ~ What is a copy constructor?
- ~ When are copy constructors called?
- ~ Can a copy constructor accept an object of the same class as a parameter instead of an object reference?
- ~ What is a conversion constructor?
- ~ What is a conversion operator?
- ~ How can I handle a constructor that fails?
- ~ How can I handle a destructor that fails?
- ~ Can a copy constructor accept an object of the same class as parameter, instead of reference of the object?
- ~ What's the order that local objects are destructed?
- ~ What's the order that objects in an array are destructed?
- ~ Can I overload the destructor for my class?
- ~ Should I explicitly call a destructor on a local variable?
- ~ What if I want a local to "die" before the close } of the scope in which it was created? Can I call a destructor on a local if I really want to?
- ~ OK, OK already; I won't explicitly call the destructor of a local, but how do I handle the above situation?
- ~ What if I can't wrap the local in an artificial block?
- ~ But can I explicitly call a destructor if I've allocated my object with `new`?
- ~ What is "placement new", and why would I use it?
- ~ When I write a destructor, do I need to explicitly call the destructors for my member objects?
- ~ When I write a derived class's destructor, do I need to explicitly call the destructor for my base class?
- ~ Is there any difference between `List x;` and `List x();`?
- ~ Can one constructor of a class call another constructor of the same class to initialize this object?
- ~ Is the default constructor for Fred always `Fred::Fred()`?
- ~ Which constructor gets called when I create an array of Fred objects?
- ~ Should my constructors use "initialization lists" or "assignment"?
- ~ Should you use this pointer in the constructor?
- ~ What is the "Named Constructor Idiom"?

=> Polymorphism & Virtual Function :

- ~ What is Polymorphism?
- ~ What is the problem with Runtime type identification?
- ~ What is virtual function?
- ~ What is a "pure virtual" member function?
- ~ How are virtual functions implemented in C++?
- ~ What is pure virtual function? or what is an abstract class?
- ~ How Virtual functions call up is maintained?
- ~ What is a virtual destructor?

=> Inheritance :

- ~ What is inheritance?
- ~ When should you use multiple inheritance?
- ~ Explain the ISA and HASA class relationships. How would you implement each in a class design?
- ~ When is a template a better solution than a base class?
- ~ What is multiple inheritance (virtual inheritance)? What are its advantages and disadvantages?
- ~ What a derived class inherits or doesn't inherit?

C Programming

Topic Name : PROGRAMMING

Sub-topic Name : C

Course link : <https://ineuron.ai/course/C-Programming>

Course Description :-

This course is designed mostly for novice programmers who may not have any prior programming language knowledge. From the most fundamental to the most sophisticated subjects, there is something for everyone. Step by step, from a simple to a sophisticated programme. This course should be taken if one want to pursue a career as a programmer. C programming is widely regarded as the cornerstone for all computer languages. If one is comfortable with C, they may go on to other languages such as PHP, C++, or Java.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => C programming basics
- => C data types
- => C data structures
- => Input/Output in C
- => Control Flow
- => Loops
- => Functions
- => Structs
- => Memory management
- => Macros

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

=> Before we Begin :

- ~ Introduction to the course.mp4
- ~ C environment on Xcode for MAC users.mp4
- ~ Setting C environment on WINDOWS.mp4
- ~ Running C file in WINDOWS.mp4
- ~ Running C file from terminal in MAC.mp4
- ~ What just happened in the source code.mp4

=> Exercise we begin :

- ~ How to use exercise file on a MAC.mp4
- ~ How to use exercise file on a WINDOWS.mp4

=> Basics Theory while writing code :

- ~ Programming 101.mp4
- ~ Solving Problems for MAC.mp4
- ~ Solving Problems for WINDOWS.mp4
- ~ Explaining Data Types in C.mp4
- ~ Variables and common associated problems.mp4
- ~ Constants and their importance.mp4
- ~ Format Specifiers.mp4
- ~ Character Constants.mp4

=> Operations & Decision :

- ~ Performing Arithmetic operations in C.mp4
- ~ Relations and Logics.mp4
- ~ Introduction to decisions aka if else.mp4
- ~ Switch and various cases.mp4
- ~ Read number and print a sum.mp4
- ~ Biggest of three.mp4
- ~ ODD or EVEN.mp4

=> Loops and Functions :

- ~ Looping basics with While loop.mp4
- ~ Do While loop in C.mp4
- ~ For Loop in C.mp4
- ~ Break keyword usage.mp4
- ~ Continue keyword in C.mp4
- ~ Type Casting in C.mp4
- ~ Custom Functions in C.mp4
- ~ Value call vs reference call.mp4
- ~ Scope of a variable.mp4

=> Coding is Fun :

- ~ Sum of three digits.mp4
- ~ Armstrong Number.mp4
- ~ Odds in Hundred.mp4
- ~ Fibonacci Series.mp4
- ~ The number Pyramid.mp4
- ~ The character pyramid.mp4
- ~ Reverse Number pyramid.mp4

=> Advance C Programming :

- ~ Introduction to Array datatype.mp4
- ~ Advance part in Array.mp4
- ~ Details about Strings.mp4
- ~ Pointers as simple as possible.mp4
- ~ Structures.mp4
- ~ Saving memory in Bit Fields.mp4
- ~ Custom Defined DataTypes.mp4
- ~ Macros in C.mp4
- ~ Error Handling.mp4
- ~ File Handling in C.mp4
- ~ Command Line Arguments.mp4
- ~ Recursion.mp4

=> Fun to code applications :

- ~ Upper to lower case converter.mp4
- ~ Case Converter.mp4
- ~ Highest in Array.mp4
- ~ Linear Search in Array.mp4

Streamlit

Topic Name : DATA SCIENCE

Sub-topic Name : MACHINE LEARNING

Course link : <https://ineuron.ai/course/Streamlit>

Course Description :-

In this course, you will learn about the fundamental concepts related to the Streamlit library. After completion of this course, you will be able to create Web applications for your Data science models with the help of Streamlit Library.

Course Features :-

- => Practical Implementation
- => Downloadable resources
- => Class Recordings
- => Quiz Questions
- => Completion Certificate

What you will learn :-

- => Streamlit
- => Web-apps
- => Building UI

Requirements :-

- => Prior Knowledge of Python Programming Language
- => Interest to learn
- => Your dedication

Instructors :-

=> Jaydeep Dixit :

~ Jaydeep Dixit is a data scientist and Blockchain Developer working at iNeuron having 1.5+ years of total experience. He specializes in Machine Learning and Blockchain. He has worked on various end-to-end projects in both machine learning and Blockchain. In addition to his primary job function, he has been recognized for his problem-solving skills.

Curriculum details :-

=> Course Introduction :

- ~ Introduction to Streamlit Preview
- ~ Who is this course for?
- ~ Course overview Preview

=> Installation :

- ~ Installation of Streamlit

=> Main Concepts :

- ~ Basic concepts
- ~ apiReference Preview
- ~ Data display elements
- ~ Chart elements
- ~ Input widgets
- ~ Media elements
- ~ Layout container
- ~ Status elements
- ~ Control flow

=> Project :

- ~ Banknote Authentication

=> Course Summary :

- ~ Summary
- ~ Future learning

OpenCV using Python

Topic Name : K12

Sub-topic Name : CLASS10

Course link : <https://ineuron.ai/course/OpenCV-using-Python>

Course Description :-

This course will teach the learner the fundamentals of the OpenCV library, including an overview of the library and image manipulation using OpenCV. It is a free and open-source computer vision and machine learning library. This course will introduce learners to the fundamentals of using OpenCV to explore computer vision and AI (AI). With the aid of many practical real-world image processing tasks, students who finish this course will gain hands-on expertise in image processing using OpenCV.

Course Features :-

- => Online Instructor-led learning
- => Practical Implementation
- => Integrate academic knowledge with the tech
- => Real-time Project
- => Live Class Recording
- => Doubt Clearing
- => Assignment in all the Module
- => Quiz in every Module
- => Career Counselling
- => Completion Certificate

What you will learn :-

- => Introduction to OpenCV
- => Python programming
- => Image processing
- => Basics of NumPy
- => Image Manipulation
- => Color spaces
- => Projects

Requirements :-

- => Interest to learn
- => Dedication
- => System with good internet connection

Curriculum details :-

- => Introduction :
 - ~ Course Introduction
 - ~ Course Pre-requisites
 - ~ Who is this course for?
 - ~ What you will get from this course?
 - ~ What is Image Processing?
 - ~ How to get access to course materials?
 - ~ What career path you can follow after completion of this course?
- => Assignment 1 :
 - ~ Explain various fields where image processing is used and why with example
- => System Setup :
 - ~ Introduction and Installation on Colab
- => Assignment 2 :
 - ~ Uninstall open-cv and try to install open-cv-contrib
- => OpenCV overview :
 - ~ Importing packages
 - ~ Numpy basics
 - ~ Reading/Writing images and videos
 - ~ Argparse introduction
 - ~ Creating script to read image path from cmd and displaying it

=> Assignment 3 :

- ~ Read a RGB image in B/W mode and display its height, width and no of channels.

=> Image Basics :

- ~ What is pixel?
- ~ Overview of coordinate system
- ~ Practical: Manipulating pixels
- ~ Creating canvas and drawing lines and rectangles

=> Assignment 4 :

- ~ Draw a bullseye using OpenCV function.

=> Image processing :

- ~ Image translation
- ~ Image Rotation
- ~ Image resizing
- ~ Image Flipping
- ~ Image Cropping
- ~ Image Arithmetic
- ~ Bitwise Operations
- ~ Image splitting and merging
- ~ OpenCV colour spaces
- ~ Smoothing And Blurring
- ~ Thresholding

=> Assignment 5 :

- ~ Shift Image up and left using image translation
- ~ Shift Image up and rotate the image by 25 degrees.
- ~ Create a function to take input from user for the degree of rotation and final (w,h) of image from user.
- ~ Apply the rectangular mask on image show the images values where the mask colour is white.
- ~ Splitting multiple channels of images into separate images.
- ~ Convert BGR to HSV colour space

=> Project Explanation :

- ~ Face detection with OpenCV Cascades
- ~ Virtual Painting

=> Summary :

- ~ Course Outro
- ~ Future Scope of openCV

Angular JS

Topic Name : WEB DEVELOPEMENT

Sub-topic Name : ANGULAR JS

Course link : <https://ineuron.ai/course/Angular-JS>

Course Description :-

Angular is a platform and framework for building single-page client applications using HTML and TypeScript. Angular is written in TypeScript. It implements core and optional functionality as a set of TypeScript libraries that you import into your apps. AngularJS is a client side JavaScript MVC framework to develop a dynamic web application. AngularJS was originally started as a project in Google but now, it is open source framework.

Course Features :-

- => Lifetime Dashboard
- => Free Course
- => Certificate
- => Assignment
- => Quiz

What you will learn :-

- => Practical implementation of Angular JS in real world
- => End to End concepts understanding

Requirements :-

- => Computer with Internet connectivity
- => Basic Programming understanding

Instructors :-

- => Keshav Singh :
- ~

Curriculum details :-

- => Introduction About Angular JS (Hindi) :
 - ~ *Introduction Preview*
- => Course Structure Breakup and Environment Setup 2 Angular JS (Hindi)
- => Components in Angular JS (Hindi)
- => Bindings In Angular (Hindi)
- => Bindings in Angular JS Part-2 (Hindi)
- => Communication Between Components - Angular JS | Hindi
- => Two Way Data Binding Angular JS | Hindi

Character Recognition using Python

Topic Name : K12

Sub-topic Name : CLASS7

Course link : <https://ineuron.ai/course/Character-Recognition-using-Python>

Course Description :-

In this course, students will learn how to handle data containing textual images. Extracting text from images requires advanced techniques like computer vision and image processing. After this course, students will be able to build challenging real-world applications that can read images and produces textual details from the same. This hands-on practical-oriented course will enable students to build their own character recognition applications and enhance their knowledge of Computer Vision and Artificial Intelligence.

Course Features :-

- => Online Instructor-led learning
- => Practical Implementation
- => Integrate academic knowledge with the tech
- => Real-time Project
- => Live Class Recording
- => Doubt Clearing
- => Assignment in all the Module
- => Quiz in every Module
- => Career Counselling
- => Completion Certificate

What you will learn :-

- => Introduction to Object character recognition
- => Different types of Object character recognition
- => Introduction to Tesseract
- => Working Tesseract OCR
- => OCR with pytesseract and OpenCV

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Curriculum details :-

- => Introduction to the course :
 - ~ Course Introduction
 - ~ Who is this course for?
 - ~ Course Overview & Course outcome
 - ~ Course Pre-requisite
 - ~ What is OCR?
 - ~ Why do we need OCR?
 - ~ What are the Different Types of OCR Available?
- => Open Source Tools :
 - ~ What is Tesseract?
 - ~ Who Developed Tesseract?
 - ~ What is OCRopus?
 - ~ What is Ocular?
 - ~ What are the primary Features of Ocular?
 - ~ What is SwiftOCR?
 - ~ Which is better, tesseract or SwiftOCR?
- => Tesseract OCR :
 - ~ Overview of Tesseract OCR
 - ~ How Tesseract OCR works?
- => Installation :
 - ~ Installing Pytesseract OCR In Colab
- => OCR with Pytesseract and OpenCv :
 - ~ How to read images using OpenCv ?
- => Practical 1 :
 - ~ Using Pytesseract we will perform OCR on Student Identity Card

=> Assignment 1 :

~ Using Pytesseract perform OCR on your own aadhar Card

=> Practical 2 :

~ Using Pytesseract we will perform OCR on handwritten texts and see how it works.

=> Assignment 2 :

~ Using Pytesseract perform OCR on your custom handwritten texts and record your results.

=> Practical 3 :

~ Using Pytesseract we will perform OCR on Paragraphs and see how our OCR works.

=> Assignment 3 :

~ Using Pytesseract perform OCR on any article of your wish and see how OCR works.

=> Assignment 4 :

~ Perform OCR on Random Images with Text and write down your Observations.

=> Course summary :

~ Course Outro

~ Future learning path

Azure Databricks

Topic Name : CLOUD

Sub-topic Name : AZURE

Course link : <https://ineuron.ai/course/Azure-Databricks>

Course Description :-

Building a solution architecture for a data engineering solution using Azure Databricks, Azure Data Lake Gen2, Azure Data Factory and Power BI, creating and using Azure Databricks service and the architecture of Databricks within Azure, creating, configuring and monitoring Databricks clusters, cluster pools and jobs, passing parameters between notebooks as well as creating notebook workflows.

Course Features :-

- => Self-paced Recording
- => Assignment in all modules
- => Quiz in every module
- => Completion Certificate

What you will learn :-

- => learn how to build a real world data project using Azure Databricks
- => learn how to create notebooks, dashboards, clusters, cluster pools and jobs in Azure Databricks
- => learn how to create Azure Data Factory triggers to schedule pipelines as well as monitor them.

Requirements :-

- => A system with internet connection
- => Your dedication
- => Interest to learn

Instructors :-

- => MD Imran :
 - ~ Working as Data Scientist with experience in solving real world business problems across different domains.

Curriculum details :-

- => Azure Databricks :
 - ~ Spark Basics Preview
 - ~ Why spark is difficult
 - ~ Why databricks in cloud?
 - ~ How to save databricks demo cost
 - ~ demo overview Preview
 - ~ Demo provision databricks, clusters and workbook
 - ~ demo mount data lake to databricks DBFS
 - ~ Demo Explore, Analyze, Clean, Transform and load data in databricks
 - ~ azure databricks cluster
 - ~ azure databricks other important components
 - ~ databricks monitoring

Class 10th Physics

Topic Name : K12

Sub-topic Name : CLASS10

Course link : <https://ineuron.ai/course/Class-10th-Physics>

Course Description :-

The Science Syllabus is elegantly designed such that it introduces the basic concepts of Science and its importance in our daily life.

Class 10th is crucial and is the foundation for higher education of students. It will make the foundation strong for the higher classes.

Physics is the Study of Physical World. It is the natural science that studies matter, its fundamental constituents, its motion and behavior through space and time, and the related entities of energy and force. Main goal of Physics is to understand how the universe behaves.

Course Features :-

=> Self Paced Videos

=> Completion Certificate

What you will learn :-

=> Light Reflection and Refraction

=> The Human Eye and the Colourful World

=> Magnetic effects of electric current

=> Sources of Energy

Requirements :-

=> System with Internet Connection

=> Interest to learn

=> Dedication

Instructors :-

=> Jawala Prakash :

~

Curriculum details :-

=> Light Reflection and Refraction :

- ~ Lecture 1 : Introduction Preview
- ~ Lecture 2 : Details of Topics that are covered Preview
- ~ Lecture 3 : Definition of Light, Laws of Reflection, Image Formation in Plane Mirror, Characteristics of Image formed by Plane Mirror, Number of Images formed by two Plane Mirrors Placed at some angle
- ~ Lecture 4 : Spherical_Mirror_Terminologies, Concave Mirror , Convex Mirror, Pole, Centre of Curvature, Radius of Curvature, Principal Axis, Aperture, Principal Focus, Focus, Relation between Radius of Curvature and Focal Length.
- ~ Lecture 5 : Real Image Vs Virtual Image Preview
- ~ Lecture 6 : Ray Diagram Rules
- ~ Lecture 7 : Image formation by Concave Mirror
- ~ Lecture 8 : Uses of Concave Mirror
- ~ Lecture 9 : Sign Convention for Reflection by Plane Mirror, Mirror Formula and Magnification
- ~ Lecture 10 : NCERT Problems
- ~ Lecture 11 : Refraction Introduction
- ~ Lecture 12 : Laws of Refraction, The Refractive Index,
- ~ Lecture 13 : Refraction through Rectangular Glass Slab,
- ~ Lecture 14 : Introduction of Lenses and related Terminologies
- ~ Lecture 15 : Lens Image Formation
- ~ Lecture 16 : Lens Formula Magnification
- ~ Lecture 17 : NCERT Lens Problems
- ~ Lecture 18 : Two thin Lenses in Contact, Power of Lens
- ~ Lecture 19 : NCERT Exemplar Problems

=> The Human Eye and the Colourful World :

- ~ Lecture 1 : Introduction and Topics
- ~ Lecture 2 : The Human Eye , Parts of an Eye
- ~ Lecture 3 : Power of Accommodation
- ~ Lecture 4 : Defects of Vision and their Correction, Myopia, Hypermetropia, Presbyopia
- ~ Lecture 5 : Refraction of Light through Prism
- ~ Lecture 6 : Dispersion of White Light by Glass Prism
- ~ Lecture 7 : Atmospheric Refraction, Twinkling of Stars, Advance
- ~ Lecture 8 : Scattering Light Phenomenon
- ~ Lecture 9 : NCERT Questions
- ~ Lecture 10 : NCERT Exemplar Questions

=> Magnetic effects of electric current :

- ~ Lecture 1 : Introduction
- ~ Lecture 2 : Oersted Experiment showing magnetic effect of Electric current, Magnetic Field and Magnetic Field Lines, Drawing magnetic field lines using Compass needle

- ~ Lecture 3 : Magnetic Field due to Current Carrying Conductor, Maxwell Right Hand Thumb Rule / Corkscrew Rule
- ~ Lecture 4 : Magnetic Field due to Current through a Circular Loop, Clock Face Rule
- ~ Lecture 5 : Magnetic Field due to a Current in a Solenoid, Electromagnet
- ~ Lecture 6 : Force on a Current Carrying Conductor in a Magnetic Field, Fleming's Left Hand Rule
- ~ Lecture 7 : Applying Fleming's Left Hand Rule to find the direction of Force on Current Current conductor in a Magnetic Field.
- ~ Lecture 8 : Electric Motor
- ~ Lecture 9 : Electromagnetic Induction, Fleming's Right Hand Rule
- ~ Lecture 10 : Electric Generator, DC Generator
- ~ Lecture 11 : Domestic Electric Circuit, Advantage of Parallel Connection in Domestic Electric Circuit

=> Sources of Energy :

- ~ Lecture 1: Introduction & Course Topics
- ~ Lecture 2 : Characteristics Good Fuel
- ~ Lecture 3 : Conventional Vs NonConventional Energy Sources
- ~ Lecture 4: All About Fossil Fuels
- ~ Lecture 5 : Thermal & Hydel Power Plants
- ~ Lecture 6 : Bio Gas & WindEnergy_Discussion
- ~ Lecture 7 : Solar Energy
- ~ Lecture 8 : Solar Cells
- ~ Lecture 9 : Energy From Sea
- ~ Lecture 10 : Geothermal Energy
- ~ Lecture 11 : Nuclear Energy
- ~ Lecture 12 : NCERT Intext Questions Discussion
- ~ Lecture 13 : Environmental Consequences
- ~ Lecture 14 : NCERT Exercise & Exemplar Problems Discussion

Complete ReactJS Developer Bootcamp

Topic Name : WEB DEVELOPEMENT

Sub-topic Name : REACT

Course link : <https://ineuron.ai/course/Complete-ReactJS-Developer-Bootcamp>

Course Description :-

This course will teach you React.js in a hands-on manner, utilizing all of the most up-to-date patterns and best practices. To become a React.js developer, you will master all of the foundations as well as advanced ideas and associated subjects. This course will provide you with a wealth of essential material and expertise, whether you are new to React or have some basic React experience.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => React templates
- => React states
- => React hooks
- => React context API
- => Firebase integration
- => Redux Apps

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

- => Introduction :
 - ~ Into to REACTJS course
- => After launch updates :
 - ~ React router v6
- => Getting started with ReactJS :
 - ~ How to use exercise files
 - ~ What is react and myths
 - ~ Tools that we need
- => Going All classic :
 - ~ Section 2 introduction
 - ~ Finishing the hello world task
 - ~ Delete and recreate everything
 - ~ Adding CSS to our Hello World
 - ~ Everything in its own file
 - ~ Reusable components
- => Create a react template :
 - ~ Section 3 introduction
 - ~ Understand the existing template
 - ~ Move navbar and understand the errors
 - ~ Convert the HTML template into React App
 - ~ Reusable Card and Assignment
- => Getting friendly with states :
 - ~ Section 4 introduction
 - ~ What are props and states

- ~ Preparing the state based applications
- ~ Complete counter application
- ~ Assignment for counter app

=> Building a Tic Tac Toe :

- ~ section 5 Introduction
- ~ Your need to study first
- ~ Preparing the Tic Tac Toe
- ~ Sending icons from components
- ~ Setup layout for tictactoe
- ~ Game is almost working
- ~ Finishing tictactoe and assignment

=> Learn React Context API with projects :

- ~ Section 6 Introduction
- ~ The problem that contextAPI solves
- ~ Detail on Context and Provider
- ~ Detail on Consumer in contextAPI
- ~ Understand the working of dark and light mode
- ~ Creating a theme Toggler with Context API
- ~ Finishing the theme switcher app

=> App with Context API with reducers and actions :

- ~ Section 7 introduction
- ~ What are we building here
- ~ Create brain of the application
- ~ useReducer for our app
- ~ Add an input form
- ~ Sending a dispatch
- ~ Display the context data and dispatch

=> Local storage and useEffect hooks :

- ~ Section 8 introduction
- ~ Introducing the Effect hook
- ~ A form to submit the data
- ~ Looping through all the values
- ~ Hooks and local storage in action

=> Learn to handle API :

- ~ Section 9 introduction
- ~ Learn to read docs for API
- ~ lets read Axios docs
- ~ Drill down the API
- ~ Extracting information from API

=> Designing a shopping cart API :

- ~ Section 10 introduction
- ~ A walk through Pexels and JSON
- ~ Add item to the cart
- ~ Buy item and remove item
- ~ Fetching photos from API
- ~ Store everything in state
- ~ Card for every product
- ~ Create cart section
- ~ Bring the shop together
- ~ Removing the duplicate

=> Firebase with Github App :

- ~ Section 11 introduction
- ~ What we are about to build
- ~ React Router crash course
- ~ Your tour to configure firebase
- ~ Read firebase docs with me
- ~ Creating components for firebase app
- ~ Bring in the react router
- ~ Headers and Footers
- ~ Conditional rendering in Navbar
- ~ Adding firebase configuration
- ~ User Signup in firebase
- ~ Logout and signin user
- ~ User card component
- ~ Repo component
- ~ Home page and finish the app

=> Firebase real time database :

- ~ Section 12 introduction
- ~ A challenge application
- ~ Firebase real time database
- ~ Setting context and actions
- ~ Creating reducers for contact
- ~ Header and Footer tasks
- ~ How to upload image in firebase storage
- ~ Add and update contact in firebase
- ~ Add or update finder
- ~ Update star and delete contact
- ~ Use dispatch and FIXME
- ~ Get all data from firebase
- ~ Loop through firebase object
- ~ Firebase finale and assignment

=> Bonus-Redux App :

- ~ 3 Principles of redux
- ~ Bring in the central state
- ~ Actions make redux simpler
- ~ Reducer - brain part of app
- ~ Component dispatching the info
- ~ 2 most important method for Redux
- ~ Provider to give access of store
- ~ Finally creating that store

=> More bonus stuff -Extra production tips :

- ~ Axios optimise API calls

=> Bonus updates :

- ~ React 18 updates

Mern stack job preparation

Topic Name : WEB DEVELOPEMENT

Sub-topic Name : WEB DEVELOPEMENT INTERVIEW

Course link : <https://ineuron.ai/course/Mern-stack-job-preparation>

Course Description :-

This section is a Step by step guide to common questions, how to solve them, optimize, and present them during tech interviews.

Learn exactly how you need to answer difficult questions and the framework you need for ANY kind of questions they throw at you.

Become a better MERN developer by mastering interview fundamentals.

Course Features :-

- => Challenges
- => Interview Questions
- => Solving Problems
- => Multiple Technologies
- => Quizzes
- => Completion Certificate

What you will learn :-

- => Interview Questions
- => Handling Counter Questions
- => Solving the Questions in Real Time
- => How to answer smartly

Requirements :-

- => Prior Knowledge in Mern Stack
- => A System with Internet Connectivity

Instructors :-

- => Syed Ashraf :
~ Full Stack Engineer at TensorGo Technologies

Curriculum details :-

=> HTML :

- ~ What is Doctype ? Preview
- ~ Complete Boilerplate of HTML
- ~ What is the difference between Elements, Attributes and Tags ?
- ~ What are self-closing tags ?
- ~ How to create a link ?
- ~ What are the common tags in Table ?
- ~ How to create a nested webpage in HTML ?
- ~ What are empty elements ?
- ~ How to create Forms ?
- ~ Describe HTML layout
- ~ What is the difference between Progress Bar and Meter ?
- ~ What is the difference between anchor and link tag ?

=> CSS :

- ~ How can you use CSS in a webpage ? Preview
- ~ Dominance between inline, internal and external
- ~ How to use image in HTML ?
- ~ What are some CSS Selectors ?
- ~ What is CSS Box Model ?
- ~ What is Embedded Style Sheet ?
- ~ What is Margin ?
- ~ What is Padding ?
- ~ What is Z-index ?
- ~ What is opacity in image ?
- ~ What is the difference between Class and Id ?
- ~ What is the difference between background color and color ?
- ~ What is the difference between display hidden and visibility hidden ?
- ~ What is universal selector ?
- ~ Dominance between inline, internal and external

=> Javascript :

- ~ What is Javascript ? Preview
- ~ What are some Data Types in Javascript ?
- ~ What are different types of Popups ?
- ~ How to write a function in javascript ?
- ~ What are named and anonymous functions ?

- ~ What are some basic loops in Javascript ?
- ~ What are some disadvantages of javascript ?
- ~ What are the different ways to Console ?
- ~ How to Comment in Javascript ?
- ~ What is Null ?
- ~ What is the difference between `==` and `===` ?
- ~ What is the difference between Undeclared and Undefined variables ?
- ~ What is type of operator ?
- ~ Write a Sum of 2 numbers using function ?

=> Node.js :

- ~ What is Node.js ?
- ~ What are the benefits of Node.js ?
- ~ Where can be Node.js used ?
- ~ What are the types of API's in Node.js ?
- ~ What is npm ?
- ~ What are modules ?
- ~ Why is Node.js preferred over other languages ?
- ~ What is package.json ?
- ~ What is Express.js ?
- ~ Create a GET API in Express.js.
- ~ What are Streams ?
- ~ How to uninstall, install and update npm package ?
- ~ Create a server in Node.js and return "Hello World".
- ~ Write a code to get post a query in Express.js.
- ~ Which are the arguments available to an Express JS route handler function?
- ~ How can you allow CORS in Express.js?
- ~ How can you deal with error handling in Express.js ? Explain with an example.
- ~ Write the code to start serving static files in Express.js.
- ~ How can we render a plain HTML?
- ~ What is the purpose of module.exports?

=> React.js :

- ~ What is React.js ?
- ~ What are the advantages of using React?
- ~ What is JSX?
- ~ What are the differences between functional and class components?
- ~ What are the differences between controlled and uncontrolled components?
- ~ Explain Strict Mode in React.
- ~ Explain React state and props.
- ~ Explain React Hooks.
- ~ What are the different ways to style a React component?
- ~ What are keys in React?
- ~ How to pass data between react components?
- ~ What is prop drilling in React?
- ~ What are the features of React?
- ~ What are the limitations of React?
- ~ Why cant browsers read JSX?
- ~ In React, everything is a component. Explain.
- ~ What is the purpose of render() in React
- ~ How can you embed two or more components into one?
- ~ What are the different phases of React components lifecycle?
- ~ What do you understand by refs in React?
- ~ How are forms created in React?
- ~ What is Redux?
- ~ What are the three principles that Redux follows?
- ~ What do you understand by Single source of truth?
- ~ List down the components of Redux.
- ~ What is React Router?
- ~ Why do we need a Router in React?

Angular Crash Course

Topic Name : WEB DEVELOPEMENT

Sub-topic Name : ANGULAR JS

Course link : <https://ineuron.ai/course/Angular-Crash-Course>

Course Description :-

This course will help you to grab the fundamentals of Angular.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Angular crash course

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

=> Angular crash course :

~ Angular crash course

=> NaN :

- ~ NaN*
- ~ NaN*
- ~ NaN*
- ~ NaN*
- ~ NaN*
- ~ NaN*

Node JS Foundation

Topic Name : WEB DEVELOPEMENT

Sub-topic Name : NODE JS

Course link : <https://ineuron.ai/course/Node-JS-Foundation>

Course Description :-

The entire course focuses on transforming you into a professional Node developer capable of creating, testing, and deploying real-world production apps. You'll be programming every project from the beginning and working through challenges that I've made to reinforce what you've learned. This will provide you with the practical experience you'll need to design and launch your project once you're finished.

Course Features :-

- => Online live Classes
- => Doubt Clearing
- => Live-Class Recording
- => Real-time Project
- => Assignment in all modules
- => Quiz in every module
- => Career Counselling
- => Completion Certificate

What you will learn :-

- => NPM
- => Router
- => Middlewares
- => Controllers
- => Serving FTP & Compression
- => Async Express Route
- => Save API's from DDoS Attack
- => Nodemailer
- => Error Handling
- => Embedded Javascript Templates

Requirements :-

- => No Prior knowledge is required
- => A System with Internet Connection
- => Your dedication

Instructors :-

- => Syed Ashraf :
~ Full Stack Engineer at TensorGo Technologies

Curriculum details :-

- => JAVASCRIPT :
 - ~ JAVASCRIPT Introduction
 - ~ JAVASCRIPT Running Javascript in Browser
 - ~ JAVASCRIPT Console
 - ~ JAVASCRIPT Strings & Numbers
 - ~ JAVASCRIPT var, let & const
 - ~ JAVASCRIPT Data Types
 - ~ JAVASCRIPT Type Conversions
 - ~ JAVASCRIPT Arithmetic Operators
 - ~ JAVASCRIPT Assignment Operator
 - ~ JAVASCRIPT Comparison Operators
 - ~ JAVASCRIPT Logical Not, Or and And
 - ~ JAVASCRIPT Swap Numbers
 - ~ JAVASCRIPT String Handling
 - ~ JAVASCRIPT String Searching
 - ~ JAVASCRIPT Arrays
 - ~ JAVASCRIPT Objects
 - ~ JAVASCRIPT Dates
 - ~ JAVASCRIPT Maths
 - ~ JAVASCRIPT If & Else

- ~ JAVASCRIPT Challenge - If & Else
- ~ JAVASCRIPT Switch Case
- ~ JAVASCRIPT Challenge - Switch Case
- ~ JAVASCRIPT JS Loops
- ~ JAVASCRIPT For Loops
- ~ JAVASCRIPT Nested Loops
- ~ JAVASCRIPT Break & Continue
- ~ JAVASCRIPT Arrays, Strings & Objects
- ~ JAVASCRIPT For-in
- ~ JAVASCRIPT For-of
- ~ JAVASCRIPT While Loops
- ~ JAVASCRIPT Do while Loops
- ~ JAVASCRIPT Loops Exercises
- ~ JAVASCRIPT Functions
- ~ JAVASCRIPT Variable Scopes in Function
- ~ JAVASCRIPT Nested Functions
- ~ JAVASCRIPT Parameters & Arguments
- ~ JAVASCRIPT How function is useful
- ~ JAVASCRIPT Return in Function
- ~ JAVASCRIPT Anonymous Functions
- ~ JAVASCRIPT Calculator
- ~ JAVASCRIPT Arrow Functions

=> NODEJS :

- ~ NODEJS Introduction & Installation
- ~ NODEJS Global Objects
- ~ NODEJS Modules
- ~ NODEJS OS Module
- ~ NODEJS Path Module
- ~ NODEJS Fs Module
- ~ NODEJS Advance FS
- ~ NODEJS npm
- ~ NODEJS Http Server
- ~ NODEJS CRUD API
- ~ NODEJS Events
- ~ NODEJS Streams
- ~ NODEJS Weather API
- ~ NODEJS Express Introduction
- ~ NODEJS Serving Files
- ~ NODEJS Router
- ~ NODEJS Post, Query & Params
- ~ NODEJS Validation
- ~ NODEJS Adding routes & Validation
- ~ NODEJS Middlewares
- ~ NODEJS Controllers
- ~ NODEJS Serving FTP & Compression
- ~ NODEJS Async Express Route
- ~ NODEJS Headers & Cookies
- ~ NODEJS Saving API's from DDoS Attack
- ~ NODEJS Uploading & Downloading
- ~ NODEJS Handling Errors
- ~ NODEJS Embedded Javascript Templates
- ~ NODEJS Validation Joi Basics
- ~ NODEJS Validation Joi In-depth
- ~ NODEJS Validation Joi with Express
- ~ NODEJS DATABASE SQL
- ~ NODEJS DATABASE SQL Basic Query with Nodejs
- ~ NODEJS Sequelize
- ~ NODEJS DATABASE MongoDB Compass
- ~ NODEJS DATABASE MongoDB with Express
- ~ NODEJS DATABASE Mongoose Intro
- ~ NODEJS DATABASE ToDo API
- ~ NODEJS DATABASE MongoDB Atlas
- ~ NODEJS DATABASE Sequelize
- ~ NODEJS JWT

Pro Aptitude - C Language

Topic Name : APTITUDE

Sub-topic Name : APTITUDE

Course link : <https://ineuron.ai/course/Pro-Aptitude---C-Language>

Course Description :-

This course is designed mostly for C test takers.

Course Features :-

=> Quizzes

=> Course completion certificate

What you will learn :-

=> C Theoretical Test

=> C Practical Test

=> C Aptitude Test

Requirements :-

=> System with minimum i3 processor or better

=> At least 4 GB of RAM

=> Working internet connection

=> Dedication to solve

Curriculum details :-

=> C Coding Test :

~ C Test 1

~ C Test 2

~ C Test 3

~ C Test 4

Angular JS Course

Topic Name : WEB DEVELOPEMENT

Sub-topic Name : ANGULAR JS

Course link : <https://ineuron.ai/course/Angular-JS-Course>

Course Description :-

This course will help you to learn the fundamentals and the practical implementations of Angular JS.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Getting started with angular
- => TypeScript that you need for Angular
- => Let's Build counter
- => Core foundation of angular apps
- => Generator - user input
- => Game- passing info to parent
- => RxJs fundamentals
- => Project:- Form service and pipe in angular project
- => Project :- SignUp reactive form in Angular
- => Project:- Web request and API in Angular
- => Project:- Fire base login and github searcher

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

=> Getting started with angular :

- ~ Angular Section 1 Intro
- ~ Tools and installation for Angular
- ~ NG command line utility
- ~ Create your first angular application
- ~ Angular file structure
- ~ Official Hello to Angular app
- ~ Online editors -A word of caution

=> TypeScript that you need for Angular :

- ~ Angular section 2 intro
- ~ Types in TypeScript
- ~ Conditionals in TypeScript
- ~ Looping through array
- ~ Functions and Parameters in TypeScript
- ~ Interface in TypeScript
- ~ Class constructor and Interface
- ~ Decorators- Best explanation you will see

=> Let's Build counter :

- ~ Angular section 3 intro
- ~ Counter app assets and naming
- ~ Creating HTML interface for the counter app
- ~ Handling counter logic
- ~ Injecting class into template

~ Event binding and interpolation

=> Core foundation of angular apps :

- ~ Angular section 4 intro
- ~ Delete everything in project
- ~ What is main ts file
- ~ Creating a module in Angular
- ~ Inject decorator in Module
- ~ Inject decorator in Component
- ~ Polyfills and running the app
- ~ File separation for component
- ~ Injecting second component

=> Generator - user input :

- ~ Angular section 5 intro
- ~ Basics about user input and routing
- ~ Load CSS, Bootstrap and Custom assets
- ~ Logic part of word application
- ~ Finish word generator and assignment

=> Game- passing info to parent :

- ~ Angular section 6 intro
- ~ Prototype and reading docs
- ~ Creating a mistake and custom CSS
- ~ Winning logic and package config
- ~ Input decorator in Angular
- ~ Angular switch and case
- ~ Winning and reset logic in Angular
- ~ Detect clicks and custom messages in Angular
- ~ Reset the game
- ~ Ng For loop and property binding in Angular
- ~ Small CSS fix - optional

=> RxJs fundamentals :

- ~ Angular section 7 intro
- ~ Problem that RxJs is trying to solve
- ~ Comparing regular Js and RxJs
- ~ Understand the flow in RxJs
- ~ What is observable in RxJs
- ~ What are observers in RxJs
- ~ Subscribe and Unsubscribe to events
- ~ Pipe and operators in RxJs

=> Project:- Form service and pipe in angular project :

- ~ Angular section 8 intro
- ~ Building todo - form and service in angular
- ~ Creating app structure for todo in Angular
- ~ Creating model for todo in Angular
- ~ Angular pipe in Action
- ~ Service - Business logic of Angular app
- ~ Life cycle hooks in Angular
- ~ NgClass and NgFor todo Angular
- ~ Reactive form and template driven form
- ~ Adding form in module Angular
- ~ 2 way binding syntax in Angular
- ~ Angular wrapper elements

=> Project :- SignUp reactive form in Angular :

- ~ Angular section 9 intro
- ~ Building a signup form and validations
- ~ Adding reactive form and bootstrap
- ~ Brain part of reactive form in Angular
- ~ Building custom form validators
- ~ Understand the basic signup form template
- ~ Connect form with validators
- ~ Render error messages to users

=> Project:- Web request and API in Angular :

- ~ Angular section 10 Intro
- ~ HTTP module in Angular
- ~ Generating components and services for users
- ~ Adding HttpClientModule to app
- ~ Injecting HttpClient in Angular
- ~ Make a web request in Angular
- ~ Accept data from parent as user
- ~ Getting API response and displaying it
- ~ One more thing about ngContent

=> Project:- Fire base login and github searcher :

- ~ Angular section 11 intro
- ~ reading routing docs and layout in Angular
- ~ Understand the project structure
- ~ Reading fire base docs
- ~ Creating a new firebase project
- ~ Config project to firebase
- ~ Generating file structure for github app
- ~ Bring everything in Module for Angular
- ~ signup and sign in and getUser from firebase
- ~ Working with GitHub service API
- ~ Footer for github Angular
- ~ Fixing bugs and header brain

- ~ Header template with router
- ~ Detect changes in grand child
- ~ User card for git
- ~ Finishing home component
- ~ Page not found
- ~ Signup with firebase for git
- ~ Protecting routes and routing
- ~ Sign In with firebase for git
- ~ Minor debugging and Final github searcher

=> Project :- Social Media and - Insta Inspired :

- ~ Angular section 12 intro
- ~ Social media mockup -intro
- ~ Understand database and storage
- ~ Understand database and architecture
- ~ Installing tools that we need
- ~ Generating all components for travelgram
- ~ Building firebase services for travelgram
- ~ Header and footer of the application
- ~ Signup with DB entry in travelgram
- ~ How to upload images or any resources in database
- ~ Conditional rendering of signup template
- ~ Setting up routing for travelgram
- ~ Router and lots of debugging
- ~ Signs in is easy now
- ~ Add post by user
- ~ Home component with a BUG
- ~ Adding list of users
- ~ Like and dislike the post
- ~ Like and dislike with changes

Tech Awareness

Topic Name : K12

Sub-topic Name : CLASS6

Course link : <https://ineuron.ai/course/Tech-Awareness>

Course Description :-

We will teach you about latest technology changes, news, how-tos and more.

Course Features :-

- => Online Instructor-led learning
- => Practical Implementation
- => Integrate academic knowledge with the tech
- => Real-time Project
- => Live Class Recording
- => Doubt Clearing
- => Assignment in all the Module
- => Quiz in every Module
- => Career Counselling
- => Completion Certificate

What you will learn :-

- => New technology
- => Social Media Awareness
- => Technologies Roles in Career

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

- => Shivan Kumar :
 - ~ Associate Data Scientist, Mentor, and Kaggle Master with 2 Years of Experience. Experience in building models that translate data points into business insights. Highly accurate at collecting, analyzing, and interpreting large datasets, developing machine learning, deep learning, Chatbots models, and deploying the solutions on the cloud. I also love to participate in Hackathons. In my free time, I like to mentor students to learn Data Science and achieve their goals.

Curriculum details :-

- => Course Introduction :
 - ~ Welcome to Tech Awareness course
 - ~ What you will learn from this course
 - ~ Course pre-requisites
 - ~ Why tech awareness is important?
 - ~ Who is this course for?
 - ~ What you will get from this course?
 - ~ How to get access to course materials?
 - ~ What career path you can follow after completion of this course?
- => Tech Awareness :
 - ~ Introduction to Technology
 - ~ Digital Technology vs Traditional Technology
 - ~ Impact of Technology on Kids
 - ~ Internet Technology
 - ~ Social Media Awareness
 - ~ Negative Impact vs Positive Impact
 - ~ When and How to Set Technology Limits for Kids
 - ~ A balanced approach to use technology
 - ~ Technology's advantages and drawbacks
 - ~ Technologies Roles in Career
 - ~ Why Programming came into existence?

Dask

Topic Name : DATA SCIENCE

Sub-topic Name : MACHINE LEARNING

Course link : <https://ineuron.ai/course/Dask>

Course Description :-

Dask is a flexible library for parallel computing in Python. It can easily handle large data which enables users to perform ml related tasks at scale.

Course Features :-

- => Self-Paced Classes
- => Real-time Project
- => Assignment in all modules
- => Quiz in every module
- => Completion Certificate

What you will learn :-

- => Dask Arrays
- => Dask Dataframes
- => Dask Bags
- => ML with Dask

Requirements :-

- => Little bit of Python Knowledge
- => Dedication
- => Internet Connection

Instructors :-

- => MD Imran :
 - ~ Working as Data Scientist with experience in solving real world business problems across different domains.

Curriculum details :-

- => Introduction :
 - ~ The course Overview Preview
 - ~ Introduction to Dask Preview
 - ~ Dask Alternatives
 - ~ Advantages of using dask
 - ~ Limitations of task
 - ~ Dask Setup Preview
- => Understanding dask arrays :
 - ~ Introduction to blocked algorithms
 - ~ Hands on with DASK Arrays
 - ~ Digging deeper into dask arrays
 - ~ performance comparison with numpy arrays Preview
 - ~ creating universal numpy functions with dask
 - ~ Limitations of Dask
- => Parallelizing python code with DASK :
 - ~ Lazy Evaluation
 - ~ using dask.delayed
 - ~ understand task graphs
- => Understanding Dask Dataframes :
 - ~ Introduction to dask dataframes
 - ~ exploring dask dataframes
 - ~ creating dask dataframes
 - ~ loading large datasets with dask dataframes
 - ~ analyzing data with dask dataframes
 - ~ limitations of dask dataframes
- => Exploring Dask Bags :
 - ~ Introduction to dask bags
 - ~ creating and storing dask bags
 - ~ manipulating dask bags
 - ~ word count example using dask bags
 - ~ Limitations of Dask Bags
- => Distributed computing with dask :
 - ~ overview of distributed computing with dask
 - ~ setting up your dask cluster
 - ~ understanding dask schedulers

~ *Exploring dask dashboard UI*

=> Machine Learning with Dask :

~ *Introduction to dask ML Preview*

~ *using dask ML for regression*

~ *using dask ML for Classification*

MongoDB Course

Topic Name : DATABASE

Sub-topic Name : MONGODB

Course link : <https://ineuron.ai/course/MongoDB-Course>

Course Description :-

This course is designed for database administrators, database architects, software developers, software architects, database professionals, project managers, IT developers, testers, analytics professionals, research professionals, and system administrators who want to work with NoSQL databases and MongoDB.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => What is mongoDB
- => How does mongoDB works
- => What is mocha and need of mocha in mongodb
- => Big umbrella of MongoDB
- => How to install mongoDB on MAC
- => How to install mongoDB on Windows
- => Create and Read operation in MongoDB
- => ObjectId and BSON in mongoDB
- => Triple A and CRUD operations in mongoDB
- => UpdateOne and DeleteOne in #mongoDB
- => UpdateMany and deleteMany in mongoDB
- => Database issues with Update in mongodb

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

=> MongoDB :

- ~ What is mongoDB
- ~ How does mongoDB works
- ~ What is mocha and need of mocha in mongodb
- ~ Big umbrella of MongoDB
- ~ How to install mongoDB on MAC
- ~ How to install mongoDB on Windows
- ~ Create and Read operation in MongoDB
- ~ ObjectId and BSON in mongoDB
- ~ Triple A and CRUD operations in mongoDB
- ~ UpdateOne and DeleteOne in #mongoDB
- ~ UpdateMany and deleteMany in mongoDB
- ~ Database issues with Update in mongodb
- ~ Getting more data in #mongodb
- ~ Save bandwidth while querying in mongoDB
- ~ Understanding objects structure in mongoDB
- ~ Understanding Arrays in mongoDB
- ~ What is schema in mongoDB
- ~ Database modeling mongoDB series

- ~ *Relation in database mongoDB*
- ~ *One to one relation in mongo database with id*
- ~ *One to many relation in mongo database*
- ~ *Many to Many relation in mongoDB*
- ~ *Exploring mocha, mongo and mongoose*
- ~ *Creating file structure and installing dependencies*
- ~ *Creating our first student schema*
- ~ *Connecting with mongodb with mongoose*
- ~ *BlueBird and Q promises*
- ~ *Hooks in mocha*
- ~ *Describe and it blocks for mocha test*
- ~ *Your first create test using mocha*
- ~ *Using beforeEach in mocha tests*
- ~ *A read test in mongoDB*
- ~ *A delete test for mongoDB*
- ~ *An update test in mongoDB*

Interactive Visualization using Seaborn

Topic Name : K12

Sub-topic Name : CLASS10

Course link : <https://ineuron.ai/course/Interactive-Visualization-using-Seaborn>

Course Description :-

This course will help learners to understand the fundamentals of data visualization with seaborn. In this course, You will learn how to generate line plots, scatterplots, histograms, distribution plots, pair plots, bar plots, count plots, and many more. Upon successful completion, you can create beautiful visualizations and extract insights out of them.

Course Features :-

- => Online Instructor-led learning
- => Practical Implementation
- => Integrate academic knowledge with the tech
- => Real-time Project
- => Live Class Recording
- => Doubt Clearing
- => Assignment in all the Module
- => Quiz in every Module
- => Career Counselling
- => Completion Certificate

What you will learn :-

- => Introduction of Seaborn
- => Environment Setup
- => Importing Dataset and Libraries
- => Different Types of Plot in Seaborn
- => Statistical Estimation
- => Project

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Curriculum details :-

- => Introduction to the course :
 - ~ Course Introduction
 - ~ Who is this course for?
 - ~ Course Overview & Course outcome
 - ~ Course Pre-requisite
 - ~ What are graphs?
 - ~ What can we depict from graphs?
 - ~ What are the different types of graphs?
 - ~ What is Seaborn?
 - ~ Why is Seaborn used?
- => Assignment 1 :
 - ~ Which is better Seaborn or Matplotlib and what is the advantage of using one over another.
- => Installation of Seaborn :
 - ~ Introduction to Google Colab
 - ~ The convenience of using Google Colab
 - ~ Setting up Google Colab
- => Different Types of Plot :
 - ~ What is a scatter plot?
 - ~ What can we understand from the scatter plot?
 - ~ Applying scatter plot on air pollution dataset
 - ~ What is a Line plot?
 - ~ What can we understand from the Line plot?
 - ~ Applying Line plot on air pollution dataset
 - ~ What is a Bar plot?
 - ~ What can we understand from the Bar plot?
 - ~ Applying Bar plot on air pollution dataset
 - ~ What is a Count plot?
 - ~ What can we understand from the Count plot?

- ~ Applying Count plot on air pollution dataset
- ~ What is a Box plot?
- ~ What can we understand from the Box plot?
- ~ Applying Box plot on air pollution dataset
- ~ What is a Violin plot?
- ~ What can we understand from the Violin plot?
- ~ Applying Violin plot on air pollution dataset
- ~ What is a Strip plot?
- ~ What can we understand from the Strip plot?
- ~ Applying Strip plot on air pollution dataset
- ~ What is a Swarm plot?
- ~ What can we understand from the Swarm plot?
- ~ Applying Swarm plot on air pollution dataset
- ~ What is a Factor plot?
- ~ What can we understand from the Factor plot?
- ~ Applying Factor plot on air pollution dataset
- ~ What is a Histogram?
- ~ What can we understand from the Histogram?
- ~ Applying Histogram on air pollution dataset
- ~ What is a KDE plot?
- ~ What can we understand from the KDE plot?
- ~ Applying KDE plot on air pollution dataset
- ~ What is a Heat map?
- ~ What can we understand from the Heat map?
- ~ Applying Heat map on air pollution dataset
- ~ What is a catplot?
- ~ What can we understand from the catplot?
- ~ Applying catplot on air pollution dataset

=> Assignment 2 :

- ~ Apply a scatter plot on your own dataset and write down your observations from them.

=> Assignment 3 :

- ~ Apply Line plot on your own datasets and write down your observations from it.

=> Assignment 4 :

- ~ Apply Bar plot on your own dataset and write down your observations from it.

=> Assignment 5 :

- ~ Apply Count plot on your own dataset and write down your observations from it.

=> Assignment 6 :

- ~ Apply Box plot on your own dataset and write down your observations from it.

=> Assignment 7 :

- ~ Apply Violin plot on your own dataset and write down your observations from it.

=> Assignment 8 :

- ~ Apply Strip plot on your own dataset and write down your observations from it.

=> Assignment 9 :

- ~ Apply Swarm plot on your own dataset and write down your observations from it.

=> Assignment 10 :

- ~ Apply Factor plot on your own dataset and write down your observations from it

=> Assignment 11 :

- ~ Apply Histogram on your own dataset and write down your observations from it.

=> Assignment 12 :

- ~ Apply KDE plot on your own dataset and write down your observations from it.

=> Assignment 13 :

- ~ Apply a Heat map on your own dataset and write down your observations from it.

=> Assignment 14 :

- ~ Apply catplot on your own dataset and write down your observations from it.

=> Course Summary :

- ~ Course outro
- ~ Future learning Path

=> Project :

- ~ Using seaborn analyze geographical datasets

Data Science Project

Topic Name : DATA SCIENCE

Sub-topic Name : MACHINE LEARNING PROJECT

Course link : <https://ineuron.ai/course/Data-Science-Project>

Course Description :-

Data science projects are a great way to get started in your career. Working on real-world projects provides us with a sense of an approach to real-world problems. You will learn the principles of data science through several projects and use cases in this course.

This hands-on course provides you with a diverse set of open source data science projects to help you practise, improve, and succeed in your data science career.

Course Features :-

- => Challenges
- => Quizzes
- => Assignments
- => Downloadable resources
- => Completion certificate

What you will learn :-

- => Data preprocessing
- => Database operations
- => Model selection
- => Project deployment
- => End-to-end real-time projects

Requirements :-

- => Basic knowledge of Machine Learning and Deep Learning
- => A system with stable internet connection
- => Your dedication

Instructors :-

- => Sudhanshu Kumar :
 - ~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

- => Python Project :
 - ~ web crawlers for image data sentiment analysis and product review sentiment analysis Preview
 - ~ Integration with web portal
 - ~ Integration with rest api, web portal and mongo db on Azure
- => Fault detection in waffers based on sensor data :
 - ~ Introduction Preview
 - ~ The problem statement and data description
 - ~ The application flow
 - ~ Ingestion and validation part1
 - ~ Validation part2
 - ~ DB operations
 - ~ Data preprocessing
 - ~ Clustering
 - ~ Model selection and tuning
 - ~ Prediction
 - ~ Deployment
- => Cement strength prediction :
 - ~ Introduction
 - ~ The problem statement and data description
 - ~ The application flow
 - ~ Code intro and logging
 - ~ Validation and transformation
 - ~ DB operations
 - ~ Data preprocessing
 - ~ Clustering
 - ~ Model selection and tuning
 - ~ Prediction
 - ~ Deployment
- => Credit card defaulters :
 - ~ Introduction

- ~ The problem statement and data description
- ~ The application flow
- ~ Code intro and logging
- ~ Validation and transformation
- ~ DB operations
- ~ Data preprocessing
- ~ Clustering
- ~ Model selection and tuning
- ~ Prediction
- ~ Deployment

=> Forest cover :

- ~ Introduction
- ~ The problem statement and data description
- ~ Application flow
- ~ Code intro and logging
- ~ Validation and transformation
- ~ DB operations
- ~ Data preprocessing
- ~ Clustering
- ~ Model selection and tuning
- ~ Prediction
- ~ Deployment

=> Income prediction :

- ~ Introduction
- ~ The problem statement and data description
- ~ The application flow
- ~ Code intro and logging
- ~ Validation and transformation
- ~ DB operations
- ~ Data preprocessing
- ~ Clustering
- ~ Model selection and tuning
- ~ Prediction
- ~ Deployment

=> Insurance fraud detection :

- ~ Introduction
- ~ The problem statement and data description
- ~ The application flow
- ~ Code intro and logging
- ~ Validation and transformation
- ~ DB operations
- ~ Data preprocessing
- ~ Clustering
- ~ Model selection and tuning
- ~ Prediction
- ~ Deployment

=> Mushroom classification :

- ~ Introduction
- ~ The problem statement and data description
- ~ The application flow
- ~ Code intro and logging
- ~ Validation and transformation
- ~ DB operations
- ~ Data preprocessing
- ~ Clustering
- ~ Model selection and tuning
- ~ Predictions
- ~ Deployment

=> Phishing classifier :

- ~ Introduction
- ~ The problem statement and data description
- ~ The application flow
- ~ Code intro and logging
- ~ Validation and transformation
- ~ DB operations
- ~ Data preprocessing
- ~ Clustering
- ~ Model selection and tuning
- ~ Prediction
- ~ Deployment

=> Thyroid detection :

- ~ Introduction
- ~ The problem statement and data description
- ~ The application flow
- ~ Code intro and logging
- ~ Validation and transformation
- ~ DB operation
- ~ Data preprocessing
- ~ Clustering
- ~ Model selection and tuning
- ~ Prediction
- ~ Deployment

=> Visibility climate :

- ~ Introduction

- ~ *The problem statement and data description*
- ~ *The application flow*
- ~ *Code intro and logging*
- ~ *Validation and transformation*
- ~ *DB operations*
- ~ *Data preprocessing*
- ~ *Clustering*
- ~ *Model selection and tuning*
- ~ *Prediction*
- ~ *Deployment*

Certified Ethical Hacker Bootcamp

Topic Name : CYBER SECURITY

Sub-topic Name : CYBERSECURITY MASTERS

Course link : <https://ineuron.ai/course/Certified-Ethical-Hacker-Bootcamp>

Course Description :-

Ethical hacking is a topic that has grown increasingly essential in today's world, and it can assist individuals and companies in adopting safe IT practices and usage. This ethical hacking course will teach you those skills as well as prepare you for associated certification examinations, allowing you to demonstrate your competence.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Introduction to Ethical Hacking
- => Reconnaissance - Surveying the Attack Surface
- => Network Presence
- => Attacking
- => Web Hacking

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Joseph Delgadillo :

~ *The digital age is upon us. Would you like to build/protect the systems that shape our future? I am here on Teachable to produce valuable educational resources for students who wish to learn skills related to information technology, network security, programming languages and much more. Enroll in my course for a practical, down to earth approach to learning.*

Curriculum details :-

=> Introduction to Ethical Hacking :

- ~ What is an ethical hacker
- ~ Terminology crash course pt1
- ~ Terminology crash course pt2
- ~ Terminology crash course pt3
- ~ CIA
- ~ Legal considerations

=> Reconnaissance - Surveying the Attack Surface :

- ~ Surveying the attack surface
- ~ Recon types
- ~ Passive recon part 1
- ~ Passive recon part 2
- ~ Active recon
- ~ Recon walkthrough tools summary
- ~ Maltego demo
- ~ FOCA demo
- ~ Harvester demo
- ~ Reconng demo

=> Scanning and Enumeration - Getting Down to Business :

- ~ Scanning enumeration
- ~ Identifying active hosts pt1
- ~ Identifying active hosts pt2
- ~ Identifying active services
- ~ OS and services fingerprinting
- ~ Network mapping
- ~ Final thoughts
- ~ Nmap syntax pt1
- ~ Nmap syntax pt2

- ~ Nmap hosts discovery
- ~ Nmap service discovery
- ~ Nmap scripts
- ~ masscan

=> Network Presence :

- ~ Network insecurity
- ~ Sniffing and spoofing
- ~ Sniffing tools
- ~ Spoofing 2C crypto 2C and wifi
- ~ Tcpdump
- ~ Wireshark
- ~ Ettercap
- ~ SSL burp
- ~ Scapy

=> Attacking :

- ~ Security overview windows architecture
- ~ Security overview credentials security
- ~ Security overview memory corruption and exploitation
- ~ Windows hacking basics
- ~ Local access and privilege escalation
- ~ Dumping hashes and cracking passwords
- ~ Linux attacking basics pt1
- ~ Linux attacking basics pt2
- ~ References
- ~ Windows msf exploit pt1
- ~ Windows msf exploit pt2
- ~ Post exploitation
- ~ Mimikatz
- ~ Mimikatz john the ripper
- ~ Hashcat
- ~ Konboot
- ~ Post cmd
- ~ Post powershell
- ~ Hydra ncrack pt1
- ~ Hydra ncrack pt2
- ~ Attacking Linux targets pt1
- ~ Attacking Linux targets pt2

=> Web Hacking :

- ~ Introduction to web hacking
- ~ Web security architecture overview pt1
- ~ Web security architecture overview pt2
- ~ Attacking the web server pt1
- ~ Attacking the webserver pt2
- ~ Attacking the platform pt1
- ~ Attacking the platform pt2
- ~ Attacking the technology pt1
- ~ Attacking the technology pt2
- ~ OWASP top 10 pt1
- ~ OWASP top 10 pt2
- ~ Attacking the business logic pt1
- ~ Attacking the business logic pt2
- ~ Tools and methodology
- ~ References
- ~ OWASP
- ~ SQLI
- ~ SQL map intro
- ~ SQL map
- ~ Burpsuite
- ~ Burpsuite xsshunter
- ~ Mitmproxy
- ~ Skipfish pt1
- ~ Skipfish pt2

=> Social Engineering - Hacking Humans :

- ~ Social engineering basics
- ~ Social engineering methods
- ~ Tools and techniques pt1
- ~ Tools and techniques pt2
- ~ Tools and techniques pt3
- ~ Physical security considerations
- ~ Final Thoughts
- ~ Intro demo
- ~ Toolkit prep
- ~ Credential harvesting
- ~ Website cloning
- ~ Automating an attack
- ~ Antivirus evasion pt1
- ~ Antivirus evasion pt2 UPDATED

AIOPS Live Projects

Topic Name : DATA SCIENCE

Sub-topic Name : MLOPS PROJECT

Course link : <https://ineuron.ai/course/AIOPS-Live-Projects>

Course Description :-

Learn how to create a machine learning system from start to finish. Develop skills in training, deploying, scaling, and monitoring your machine learning model's performance in production. This course is specifically designed for deploying and scaling machine learning and deep learning applications.

Course Features :-

- => Online live classes
- => Doubt Clearing
- => Live-Class Recording
- => Real-time Project
- => Assignment in all modules
- => Quiz in every module
- => Career Counselling
- => Completion Certificate

What you will learn :-

- => Design end-to-end machine learning system
- => Monitor and visualize the performance of apps
- => Build CI/CD pipelines
- => Optimizing the model training & prediction pipelines

Requirements :-

- => Minimum System requirement: Intel Core i3 processor and 4GB RAM or Higher
- => A system with a decent internet connection
- => AWS, Azure, GCP, Digital Ocean accounts
- => Your dedication
- => Interest to learn

Instructors :-

=> Avnish Yadav :

~ 3+ years of experience in various domains such as data scientist, data analyst, database developer, and .net developer. Implemented various sophisticated business requirements, performed an analysis of various data to capture insights and hidden patterns. Fine and tuned various regression and classification-based algorithms for prediction. Implemented various ETL pipelines to fulfil the business requirement. Automated various machine learning pipelines such as data loading, data cleaning, data validation, model selection, model tuning, and model monitoring pipeline. Implemented machine learning pipeline in azure machine learning studio. I have a keen interest to solve complicated machine learning problems to fulfil business requirements.

Curriculum details :-

=> Building Machine learning Pipeline :

- ~ Overview of Machine Learning Pipeline
- ~ Need for Machine Learning Pipeline
- ~ Discussion on each step of ML Pipeline
- ~ Introduction to Tensorflow Extend
- ~ Task Communication with each other
- ~ TFX component Internal Mechanism
- ~ Machine Learning Meta data Store and It's uses
- ~ Introduction to Apache Beam
- ~ TFX component internal uses of Apache Beam

=> Data Ingestion :

- ~ About Data Ingestion
- ~ Retrieval of data and data versioning

=> Data Validation :

- ~ About Data Validation
- ~ Data Validation using TensorFlow Data Validation
- ~ Implementation of alter due to data drift

=> Data Preprocessing :

- ~ About Data Preprocessing
- ~ Feature Engineering using Tensorflow Transform

=> Model Training and Model Tuning :

- ~ Discussion on model training
- ~ Implementation of model training in ML Pipeline
- ~ Discussion on model tuning
- ~ Implementation of model tuning

=> Model Evaluation :

- ~ Overview of Model Evaluation
- ~ Understanding useful metrics to evaluate model performance
- ~ Capturing biases of model
- ~ Versioning of Model

=> Model Deployment :

- ~ Model Deployment using TensorFlow Serving
- ~ Simple Flask Implementation
- ~ Implementation of monitoring deployed model
- ~ Deployment using Kubernetes

=> Integration with Apache Beam and Apache Airflow :

- ~ Implementation of Pipeline
- ~ Configure pipeline for Orchestration platform

=> Feedback Loop :

- ~ Understanding of feedback loop
- ~ Implementation of feedback loop to improve models

=> Data Privacy for Machine Learning :

- ~ Understanding the need for data privacy
- ~ Methods to implement data privacy
- ~ Differential Privacy
- ~ Federated Learning
- ~ Encrypted machine Learning

=> Deployment of End to End Pipeline :

- ~ Cloud Deployment (AWS/ GCP/ Azure)

Machine Learning and Data Science Bootcamp

Topic Name : DATA SCIENCE

Sub-topic Name : MACHINE LEARNING

Course link : <https://ineuron.ai/course/Machine-Learning-and-Data-Science-Bootcamp>

Course Description :-

This is a data science detailed course where you will learn all the stack required to work in data science, data analytics and big data industry.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Getting started with Machine Learning
- => Installation for Windows and MAC
- => Python Quick Refresher
- => Mastering NUMPY Library
- => Mastering PANDAS Library
- => Mastering MATPLOTLIB Library
- => Mastering SEABORN Library
- => Multi index Matrix
- => Portfolio Project - Classic 911 analysis
- => Data preprocessing for Machine Learning
- => Supervised, Unsupervised and Reinforcement Learning
- => Linear regression algorithm
- => Portfolio Project - Housing dataset analysis
- => Decision Tree Regression Algorithm
- => K-Nearest Neighbors Algorithm
- => Support Vector Machine Classifier
- => Nave Bayes Algorithm
- => Neural Network and Deep Learning

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

- => Getting started with Machine Learning :
 - ~ Why Machine Learning and How it works
 - ~ Where we are using Machine Learning
 - ~ What is machine learning
- => Installation for Windows and MAC :
 - ~ what you need - Windows
 - ~ Installing python Anaconda and setup - Windows
 - ~ Let 27s collect our tools first- MAC
 - ~ Installing python and anaconda - MAC

=> Python Quick Refresher :

- ~ *Python datatypes*
- ~ *Making decisions in python*
- ~ *Loops in python*
- ~ *Practice Python - 1 - Average list*
- ~ *Practice Python - 2 - Palindrome*
- ~ *Practice Python - 3 - Identity matrix*
- ~ *Practice Python - 4 - Multiplication table*
- ~ *Practice Python - 5 - Second largest*
- ~ *Practice Python - 6 - merging lists*

=> Mastering NUMPY Library :

- ~ *Anaconda and python notebooks*
- ~ *What is numpy*
- ~ *Basics of numpy - generating matrix*
- ~ *Numpy - matrix operations*
- ~ *Numpy file paths and copy issues*
- ~ *Numpy 2D selection*
- ~ *Numpy conditional returns*
- ~ *Numpy Mean Deviation 2C dot and cross products*

=> Mastering PANDAS Library :

- ~ *Introduction to PANDAS library*
- ~ *Handle series with Pandas*
- ~ *DataFrames in Pandas*
- ~ *Subselection using pandas*
- ~ *Conditional selection in PANDAS*
- ~ *Multiple conditions in PANDAS*
- ~ *basics of datacleanup*
- ~ *Merging the data and operations*
- ~ *Reading and writing files*

=> Mastering MATPLOTLIB Library :

- ~ *Introduction to MATPLOTLIB*
- ~ *Our first linear graph using MATPLOTLIB*
- ~ *plotting histograms in matplotlib*
- ~ *plotting ads data with stackplot*
- ~ *Pie chart for ads*

=> Mastering SEABORN Library :

- ~ *Introduction to SEABORN*
- ~ *Plotting graphs with SEABORN*
- ~ *Factor plot and Fat consumption data*
- ~ *Swarmplot with IRIS dataset*

=> Multi index Matrix :

- ~ *Multilevel indexing*

=> Portfolio Project - Classic 911 analysis :

- ~ *Setup of resource files and python notebook*
- ~ *Loading dataset and verifying it*
- ~ *Answering top 3 questions in dataset*
- ~ *Python knowledge with Pandas*
- ~ *working with data time of python*
- ~ *Group the data by Days and months*

=> Data preprocessing for Machine Learning :

- ~ *Data preprocessing basics for Machine Learning*
- ~ *importing dataset and libraries*
- ~ *Separating dependent and independent matrixes*
- ~ *Imputation of missing values*
- ~ *Dummy matrix and one hot encoder*
- ~ *Preparing test and training dataset*
- ~ *Feature scaling - Might be needed*

=> Supervised, Unsupervised and Reinforcement Learning :

- ~ *Supervised, Unsupervised and Reinforcement Learning*

=> Linear regression algorithm :

- ~ *Linear Regression theory*
- ~ *Importing libraries and dataset*
- ~ *creating test and training data sets*
- ~ *Training the machine for prediction*
- ~ *plotting graphs on training and predictions*

=> Portfolio Project - Housing dataset analysis :

- ~ *Housing dataset analysis using Linear Regression*

=> Decision Tree Regression Algorithm :

- ~ *How decision tree Algorithm works*
- ~ *Loading our dataset for Decision tree*
- ~ *Predicting values using Decision Tree algorithm*

=> K-Nearest Neighbors Algorithm :

- ~ *K-Nearest Neighbors theory*
- ~ *loading data and libraries*
- ~ *splitting data into training and test sets*
- ~ *Applying KNN confusion matrix and plotting*

=> Support Vector Machine Classifier :

- ~ *Theory of Support Vector Machine SVM*
- ~ *Loading libraries and dataset*

- ~ *Test and training data with feature scaling*
- ~ *Confusion matrix and stackoverflow debugging*

=> Nave Bayes Algorithm :

- ~ *What is Bayes theorem*
- ~ *Naive bayes and scikit docs for it*
- ~ *importing dataset for NB*
- ~ *data preprocessing for NB*
- ~ *prediction and confusion matrix for NB*

=> Neural Network and Deep Learning :

- ~ *Neural Network and Deep learning*
- ~ *Installing tensorflow*

Full Stack Data Science Nov'21 Tech Neuron

Topic Name : DATA SCIENCE

Sub-topic Name : FULL STACK DATA SCIENCE

Course link : <https://ineuron.ai/course/Full-Stack-Data-Science-Nov'21-Tech-Neuron>

Course Description :-

This is a full stack data science self-paced course with recordings of live mentor-led classes and a full-time one-year internship provided by iNeuron intelligence private limited, where you will learn all the stack required to work in the data science, data analytics, and big data industries, including machine learning operations and cloud infrastructure, as well as real-time industry project and product development with the iNeuron product development team, and you will contribute on various levels.

Course Features :-

- => Full stack Data Science Recorded Lectures
- => One year of internship Anytime
- => Online Instructor-led learning: Live teaching by instructors
- => 56 + hands-on industry real-time projects.
- => 500 hours live interactive classes.
- => Lifetime Dashboard access
- => Assignment in all the module

What you will learn :-

- => Python
- => Stats
- => Machine learning
- => Deep learning
- => Computer vision
- => Natural language processing
- => Data analytics
- => Big data
- => Architecture
- => Databases

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

=> Sudhanshu Kumar :

~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

=> krish naik :

~ Having 10+ years of experience in Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

=> Sunny Savita :

~ I'm an AI enthusiast, graduate in Computer science and engineering. Currently working with iNeuron.ai as a Data Scientist and having 2+ years of experience. I have skills in big data, machine learning, computer vision, Natural language processing. My expertise also includes project design development and implementation with AI/ops tools.

Curriculum details :-

=> Welcome to the Course :

- ~ Course Overview
- ~ Dashboard Introduction

=> Python Fundamentals :

- ~ Python Basic
- ~ String, List, Indexing
- ~ Tuple, Set & Dict
- ~ If, Else & For Loop
- ~ For Loops & While loops
- ~ Python Program Discussion in loops

- ~ *Function Part - 1*
- ~ *Function Part - 2*

=> Advanced Python :

- ~ *Iterator Generator & File System*
- ~ *Exception handling Class 1 part 1*
- ~ *Exception handling Class 1 part 2*
- ~ *Exception handling Class 2*
- ~ *Module & Packages*
- ~ *OOPS Part 1*
- ~ *OOPS Part 2*
- ~ *OOPs Concepts - Polymorphism*

=> Working with Databases & Python :

- ~ *SQL Part 1*
- ~ *SQL Part 2*
- ~ *OOPS Discussion*
- ~ *Introduction to MongoDB*
- ~ *Working with Python & MongoDB Part1*
- ~ *Working with Python & MongoDB Part2*
- ~ *SQL lite, map, reduce, filter, zip*

=> Working with Pandas & Numpy :

- ~ *Introduction to Pandas*
- ~ *Working with Pandas*
- ~ *Pandas Data Analysis Part 1*
- ~ *Pandas Data Analysis Part 2*
- ~ *Pandas and Numpy*
- ~ *Numpy methods*

=> GUI Programming :

- ~ *GUI Programming with Tkinter*

=> Working with Graphs & Charts :

- ~ *Introduction to Graphs & Charts*
- ~ *Working with Graphs in Python*

=> API :

- ~ *API Testing*

=> Python Projects :

- ~ *Flask End-to-End Project*
- ~ *Review Scraper*
- ~ *Image Scraper and deployment on Heroku, AWS and Azure*

=> Statistics :

- ~ *Introduction to Stats - Day 1*
- ~ *Stats - Day 2*
- ~ *Extra doubt session*
- ~ *Stats - Day 3*
- ~ *Stats - Day 4*
- ~ *Stats - Day 5*

=> EDA & Feature Engineering :

- ~ *Introduction to EDA*
- ~ *Doubt Clearing session*
- ~ *EDA and Feature Engineering*

=> Machine Learning :

- ~ *Linear Regression*
- ~ *Ridge Lasso Regression, Elastic & Logistic Regression*
- ~ *Naive Bayes Algorithm and practical implementation of Ridge Lasso and Logistic Regression*
- ~ *Logistic Practical, SSVM, SVR*
- ~ *Decision Tree Classification*
- ~ *Random Forest & SVM*
- ~ *Adaboost*
- ~ *Gradient Boosting*
- ~ *Clustering*
- ~ *Introduction to Machine learning*
- ~ *Linear Regression*
- ~ *Linear Regression live coding demonstration part-1*
- ~ *Linear Regression live coding demonstration part-2*
- ~ *Project Admission Prediction, Lasso, Ridge & Elastic Net*
- ~ *Project deployment in Heroku, Azure & AWS*
- ~ *Logistic Regression*
- ~ *Logistic Regression implementation*
- ~ *Decision Tree*
- ~ *Decision Tree Part 2 , Ensemble Tech, Random Forest & Boosting*
- ~ *KNN and SVM*
- ~ *Decision Tree Practical Implementation*
- ~ *Decision Tree Live Coding & Grid Search*
- ~ *Grid Search, Bagging Classifier & Random Forest*
- ~ *KNN, SVC, SVR & Stacking*
- ~ *Clustering*
- ~ *Clustering and PCA*
- ~ *PCA practical, DBSCAN and Naive Bayes*
- ~ *XG Boost, NLTK & TF-IDF*

=> Machine Learning End to End Project :

- ~ *Machine learning project*
- ~ *Machine learning project*
- ~ *ML End to End project Pipeline Explanation*

- ~ *ML Project Explanation along with GitHub and Docker*
- ~ *Machine Learning Pipelines Live Coding Part-1*
- ~ *Machine Learning Pipelines Live Coding Part-2*
- ~ *2nd July Live Class*
- ~ *Machine Learning Pipelines Live Coding Part-2*
- ~ *Revision Class*
- ~ *Model training, evaluation, and push*
- ~ *Model training, evaluation, and push*
- ~ *Revision*

=> PCA in ML :

- ~ *PCA*
- ~ *PCA Implementation*

=> NLP for Machine Learning :

- ~ *NLP in ML*
- ~ *Spam Classification*

=> Time Series Analysis :

- ~ *Introduction to Time Series*
- ~ *Time Series Implementation*

=> Stats :

- ~ *Introduction*
- ~ *Different types of Statistics*
- ~ *Population vs Sample*
- ~ *Mean, Median and Mode*
- ~ *Variance, Standard Deviation*
- ~ *Sample Variance why n-1*
- ~ *Standard Deviation*
- ~ *Variables*
- ~ *Random Variables*
- ~ *Percentiles & quartiles*
- ~ *5 number summary*
- ~ *Histograms*
- ~ *Gaussian - Normal distribution*
- ~ *Standard Normal distribution*
- ~ *Application Of Zscore*
- ~ *Basics Of Probability*
- ~ *Addition Rule In Probability*
- ~ *Multiplication rule in probability*
- ~ *Permutation*
- ~ *Combination*
- ~ *Log Normal Distribution*
- ~ *Central Limit theorem*
- ~ *Statistics - Left Skewed And Right Skewed Distribution And Relation With Mean, Median And Mode*
- ~ *Covariance*
- ~ *Pearson And Spearman Rank Correlation*
- ~ *What is P Value*
- ~ *What is Confidence Intervals*
- ~ *How To Perform Hypothesis Testing - Confidence IntervalZ Test Statistics Derive Conclusion*
- ~ *Hypothesis testing part 2*
- ~ *Hypothesis testing part 3*
- ~ *Finalizing statistics*

=> ML Projects :

- ~ *Detailed Project Report explanation*
- ~ *Project :- Wafer Fault Detection Part 1*
- ~ *Project :- Wafer Fault Detection Part 2*
- ~ *Deployment in Heroku using docker and circleci*

=> ML Project 1 :- Fault detection in wafers based on sensor data :

- ~ *Introduction*
- ~ *The problem statement and Data Description*
- ~ *The Application Flow*
- ~ *Ingestion and Validation Part1*
- ~ *Validation Part2*
- ~ *DB Operations*
- ~ *Data Preprocessing*
- ~ *Clustering*
- ~ *Model Selection and Tuning*
- ~ *Prediction*
- ~ *Deployment*

=> ML Project 2 :- Cement Strength Prediction :

- ~ *Introduction*
- ~ *The Problem Statement and Data Description*
- ~ *The Application Flow*
- ~ *Code Intro and Logging*
- ~ *Validation and Transformation*
- ~ *DB Operations*
- ~ *Data Preprocessing*
- ~ *Clustering*
- ~ *Model Selection and Tuning*
- ~ *Prediction*
- ~ *Deployment*

=> ML Project 3 :- Credit Card Defaulters :

- ~ *Introduction*
- ~ *The Problem Statement and Data Description*
- ~ *The Application Flow*

- ~ Code intro and Logging
- ~ Validation and Transformation
- ~ DB Operations
- ~ Data Preprocessing
- ~ Deployment

=> Time Series :

- ~ Arima, Sarima, Auto Arima
- ~ Time series using RNN LSTM, Prediction of NIFTY stock price
- ~ Time series using RNN LSTM, Prediction of NIFTY stock price

=> DL ANN - Introduction :

- ~ Introduction to Deep Learning
- ~ Importance of Deep learning
- ~ Why you should study Deep Learning? (Motivation)
- ~ ANN vs BNN
- ~ The first Artificial Neuron

=> DL ANN - Perceptron :

- ~ Overview of Perceptron
- ~ More about Perceptron
- ~ Perceptron implementation using python - 1
- ~ Perceptron implementation using python - 2
- ~ Perceptron implementation using python - 3
- ~ Perceptron implementation using python - 4
- ~ Perceptron implementation using python - 5
- ~ Perceptron implementation using python - 6
- ~ Perceptron implementation using python - 7
- ~ Python scripting & modular coding for Perceptron
- ~ Python logging basics and docstrings
- ~ Python packaging, Github actions, and PyPI

=> DL ANN - 1 :

- ~ Multilayer Perceptron
- ~ Forward propagation
- ~ Why we need Activation function?
- ~ ANN implementation using tf.keras - 1
- ~ ANN implementation using tf.keras - 2
- ~ ANN implementation using tf.keras - 3
- ~ ANN implementation using tf.keras - 4
- ~ ANN with Callbacks | Tensorboard | Early Stopping | Model Checkpointing

=> DL ANN - 2 :

- ~ Vector
- ~ Differentiation
- ~ Partial differentiation
- ~ Maxima and minima concept
- ~ Gradient descent basics
- ~ In-depth understanding of Gradient descent with mathematical proof

=> DL ANN - 3 :

- ~ Chain rule
- ~ Backpropagation

=> DL ANN - 4 :

- ~ General problems in training Neural Networks
- ~ Vanishing and Exploding gradients
- ~ Activation Function Basics
- ~ Weight initialization
- ~ Activation Functions - 1
- ~ Activation functions - 2
- ~ Activation functions - 3
- ~ Transfer learning
- ~ Batch normalization -1
- ~ Batch normalization -2
- ~ Batch normalization -3

=> DL ANN - 5 :

- ~ Introduction to fast optimizers
- ~ Momentum optimization
- ~ NAG
- ~ Elongated bowl problem | AdaGrad
- ~ RMSProp
- ~ Adam
- ~ Loss functions
- ~ Regularization
- ~ Dropout

=> Computer Vision - Introduction :

- ~ Introduction to Course
- ~ Course Overview
- ~ Installing Anaconda, Pycharm & Postman
- ~ Working with Conda Envs
- ~ Pycharm Introduction
- ~ Pycharm with Conda
- ~ Pycharm with venv
- ~ Pycharm with Pipenv

=> Computer Vision - CNN Foundations :

- ~ Why CNN? Building an Intuition for CNN
- ~ CNN, Kernels, Channels, Feature Maps, Stride, Padding
- ~ Receptive Fields, Image Output Dimensionality Calculations, MNIST Dataset Explorations with CNN

- ~ *MNIST CNN Intuition, Tensorspace.js, CNN Explained, CIFAR 10 Dataset Explorations with CNN*
- ~ *Dropout & Custom Image Classification Dog Cat Dataset*
- ~ *Deployment in Heroku, AWS, Azure*
- ~ *Deployment in GCP, AWS EBS*

=> Computer Vision - CNN Architectures :

- ~ *LeNet-5*
- ~ *LeNet-5 Practical*
- ~ *AlexNet*
- ~ *AlexNet Practical*
- ~ *VGGNet*
- ~ *VGG16 Practical*
- ~ *Inception*
- ~ *Inception Practical*
- ~ *ResNet*
- ~ *Resnet Practical*

=> Computer Vision - Image Classification Hyper Parameter Tuning :

- ~ *Keras Tuner*
- ~ *Building a simple model*
- ~ *Tuning with Keras Tuner*

=> Computer Vision - Data Augmentation :

- ~ *What is Data Augmentation?*
- ~ *Benefits of Data Augmentation*
- ~ *Exploring Papers like RICAP, Random Erasing, Cutout*
- ~ *Exploring Augmentor*
- ~ *Exploring Roboflow*

=> Computer Vision - Object Detection Basics :

- ~ *What is Object Detection?*
- ~ *Competitions for Object Detection*
- ~ *Bounding Boxes*
- ~ *Bounding Box Regression*
- ~ *Intersection over Union (IoU)*
- ~ *Precision & Recall*
- ~ *What is Average Precision?*

=> Computer Vision - Object Detection Architectures :

- ~ *Object Detection Family*
- ~ *RCNN*
- ~ *RCNN Network Architecture*
- ~ *Cons of RCNN*
- ~ *FAST RCNN*
- ~ *FAST RCNN Network Architecture*
- ~ *Cons of FAST RCNN*
- ~ *FASTER RCNN*
- ~ *FASTER RCNN Network Architecture*
- ~ *YOLO*
- ~ *YOLO Architecture*
- ~ *YOLO Limitations*
- ~ *SSD*
- ~ *SSD Network*

=> Computer Vision - Practicals Object Detection using Tensorflow 1.x :

- ~ *Introduction to TFOD1.x*
- ~ *Using Google Colab with Google Drive*
- ~ *Installation of Libraries in Colab*
- ~ *TFOD1.x Setup in Colab*
- ~ *Visiting the Model Zoo*
- ~ *Inferencing in Colab*
- ~ *Inferencing in Local*
- ~ *Important Configurations Files*
- ~ *Webcam Testing*

=> Computer Vision - Practicals Training a Custom Cards Detector using Tensorflow1.x :

- ~ *Custom Model Training in TFOD1.x*
- ~ *Our Custom Dataset*
- ~ *Doing Annotations or labeling data*
- ~ *Selection of Pretrained Model from Model Zoo*
- ~ *Files Setup for Training*
- ~ *Let's start Training in Colab*
- ~ *Export Frozen Inference Graph*
- ~ *Inferencing with our trained model in Colab*
- ~ *Training in Local*
- ~ *Inferencing with our trained model in Local*

=> Computer Vision - Practicals Creating an Cards Detector Web App with TFOD1 :

- ~ *Code Understanding*
- ~ *WebApp Workflow*
- ~ *Code Understanding*
- ~ *Prediction with Postman*
- ~ *Debugging our Application*

=> Computer Vision - Practicals Object Detection using Tensorflow 2.x :

- ~ *Introduction to TFOD2.x*
- ~ *Using the Default Colab Notebook*
- ~ *Google Colab & Drive Setup*
- ~ *Visiting TFOD2.x Model Garden*
- ~ *Inference using Pretrained Model*
- ~ *Inferencing in Local with a pretrained model*

=> Computer Vision - Practicals Training a Custom Chess Piece Detector using Tensorflow2 :

- ~ Custom Model training in TFOD2.x
- ~ Our Custom Dataset TF2
- ~ File Setup for Training
- ~ Let's start Training
- ~ Let's start Training
- ~ Stop Training or resume Training
- ~ Evaluating the trained model
- ~ Convert CKPT to Saved Model
- ~ Inferencing using the Custom Trained Model in Colab
- ~ Inferencing using the Custom Trained Model in Local PC

=> Computer Vision - Practicals Creating an Chess Piece Detector Web App with TFOD2 :

- ~ Creating a Pycharm project & Environment Setup TF2
- ~ Application Workflow
- ~ Code understanding
- ~ Testing our App with Postman
- ~ Debugging our Application

=> Computer Vision - Practicals Object Detection using Detectron2 :

- ~ Introduction to Detectron2
- ~ Detectron2 Colab Setup
- ~ Visiting Detectron2 Model Zoo
- ~ Detectron2 Pretrained Model Inferencing

=> Computer Vision - Practicals Training a Custom Detector using Detectron2 :

- ~ Detectron2 Custom Training
- ~ Exploring the Dataset
- ~ Registering Dataset for Training
- ~ Let's start Training
- ~ Inferencing using the Custom Trained Model in Colab
- ~ Evaluating the Model

=> Computer Vision - Practicals Creating an Custom Detector Web App with Detectron2 :

- ~ Creating a Pycharm project & Environment Setup Detectron2
- ~ Application Workflow
- ~ Code understanding
- ~ Testing our App with Postman
- ~ Debugging our Application

=> Computer Vision - Practicals Object Detection using YoloV5 :

- ~ Introduction to YoloV5
- ~ YoloV5 Colab Setup
- ~ Inferencing using Pre Trained Model

=> Computer Vision - Practicals Training a Custom Warehouse Apparel Detector using YoloV5 :

- ~ Custom Training with YoloV5
- ~ Exploring the Dataset
- ~ Doing Annotations or labeling data
- ~ Setting up Google Colab & Drive
- ~ Let's start Training
- ~ Inferencing using the Custom Trained Model in Colab

=> Computer Vision - Practicals Creating an Warehouse Apparel Detector Web App with YOLOV5 :

- ~ Creating a Pycharm project & Environment Setup Yolo
- ~ Application Workflow
- ~ Code understanding
- ~ Testing our App with Postman
- ~ Debugging our Application

=> Computer Vision - Image Segmentation :

- ~ Segmentation Introduction
- ~ From Bounding Box to Polygon Masks
- ~ What is Image Segmentation?
- ~ Types of Segmentation
- ~ MASKRCNN
- ~ MASK RCNN Architecture

=> Computer Vision - MASK RCNN Practicals with TFOD :

- ~ Segmentation with TFOD1.x
- ~ Local Setup MASKRCNN
- ~ Exploring the Dataset
- ~ Data Annotation
- ~ Model Selection
- ~ Files Setup for Training
- ~ Model Training
- ~ Export Frozen Inference Graph
- ~ Model Prediction

=> Computer Vision - MASKRCNN practical with Detectron2 :

- ~ Introduction to Detectron2
- ~ Detectron2 Colab Notebook
- ~ Exploring the Model Zoo
- ~ Detectron2 Colab Setup
- ~ Custom Training with Detectron2
- ~ Exploring our Dataset
- ~ Data Annotation
- ~ Data Preparation
- ~ Setup for Training
- ~ Let's start Training
- ~ Inferencing using the Custom Trained Model in Colab

~ *Evaluating the Model*

=> **Computer Vision - Face Recognition Project :**

~ *Introduction to Project*
~ *Requirement Gathering*
~ *Techstack Selection*
~ *Project Installation*
~ *Project Demo*
~ *Project Workflow*
~ *Core Components of the Application*
~ *Data Collection Module*
~ *Generate Face Embeddings*
~ *Training Face Recognition Module*
~ *Prediction Pipeline*
~ *Entry point of the Application*
~ *Application Workflow*
~ *Debugging our Application*

=> **Computer Vision - Object Tracking Project :**

~ *Object Tracking project*
~ *Project Installation Tracking*
~ *Project Demo*
~ *Code Understanding*

=> **Computer Vision - GANS :**

~ *Introduction to GANS*
~ *GAN Architecture*
~ *GAN PRACTICALS Implementation*

=> **Computer Vision Project - Traffic Vehicle Detection :**

~ *Introduction to Vehicle Detection project*
~ *Requirement Gathering*
~ *Framework Selection*
~ *Detailed Project Workflow*
~ *Data Collection Scrap*
~ *Data Preparation*
~ *Data augmentation augmenter*
~ *Data Annotations*
~ *Model Training*
~ *Creating a Pycharm project & Environment Setup TVD*
~ *WebApp Workflow*
~ *Code Understanding*
~ *Prediction with Postman*
~ *Debugging our Application*

=> **Computer Vision Project - Helmet Detection :**

~ *Introduction to Helmet Detection project*
~ *Requirement Gathering*
~ *Techstack Selection*
~ *Detailed Project Workflow*
~ *Data Collection*
~ *Data Preparation*
~ *Data Augmentation*
~ *Data Annotations*
~ *Model Training*
~ *Creating a Pycharm project & Environment Setup HD*
~ *WebApp Workflow*
~ *Code Understanding*
~ *Prediction with Postman*
~ *Debugging our Application*

=> **Computer Vision Project - Fashion Apparel Detection :**

~ *Introduction to Fashion Apparel Detection project*
~ *Requirement Gathering*
~ *Techstack Selection*
~ *Detailed Project Workflow*
~ *Data Collection*
~ *Data Preparation*
~ *Data Augmentation*
~ *Data Annotations*
~ *Model Training*
~ *Creating a Pycharm project & Environment Setup FAD*
~ *Project Demo*
~ *WebApp Workflow*
~ *Code Understanding*
~ *Prediction with Postman*
~ *Debugging our Application*

=> **Computer Vision Project - Image TO Text OCR :**

~ *Introduction to Project*
~ *Project Installation OCR*
~ *Project Demo*
~ *Application Workflow*
~ *Code Understanding*
~ *Debugging our App*
~ *Different OCR's available*

=> **Computer Vision Project - Shredder System :**

~ *Introduction to Shredder Systems*
~ *Requirement Gathering*
~ *Techstack Selection*

- ~ Data Collection
- ~ Data Augmentation
- ~ Data Preparation
- ~ Data Annotation
- ~ Model Selection from Zoo
- ~ Model Training
- ~ Creating a Pycharm project & Environment Setup SS
- ~ Application Workflow
- ~ Project Demo
- ~ Code Understanding
- ~ Debugging our Application
- ~ Project Workflow
- ~ Project Workflow

=> Computer Vision Project - Automatic Number plate Recognition with TFOD1.x :

- ~ Introduction to ANPR Project
- ~ Requirement Gathering
- ~ Tech Stack Selection
- ~ Data Collection
- ~ Data Augmentation
- ~ Data Preparation
- ~ Data Annotation
- ~ Model Selection From Zoo
- ~ Model Training
- ~ Creating a Pycharm project & Environment Setup ANPR
- ~ Application Workflow
- ~ Create Google OCR API Key
- ~ Project Demo
- ~ Code Understanding
- ~ Debugging our Application

=> NLP Overview :

- ~ NLP Overview
- ~ NLP very basic

=> NLP Word Embeddings :

- ~ TFIDF
- ~ Word Embeddings Part-1
- ~ Word Embeddings Part-2

=> NLP RNN :

- ~ RNN basic
- ~ RNN Implementation

=> NLP LSTM & GRU :

- ~ LSTM Introduction
- ~ GRU

=> NLP Attention Based Model :

- ~ Encoder Decoder and Attention Mechanism
- ~ Attention All You Need Paper Understanding

=> NLP Transfer Learning in NLP :

- ~ GPT and BERT Model
- ~ SOTA Model with Paper Discussions
- ~ Albert & DistillBert Project Discussion

=> NLP Project :- Megatron :

- ~ Megatron Project

=> NLP Project:- Brand Measures :

- ~ Brand Measures Project

=> NLP Project:- Text to Speech :

- ~ Introduction
- ~ Project Setup Text to Speech
- ~ Project Demo
- ~ Code Explanation
- ~ Project Workflow
- ~ Prediction with Postman
- ~ Debugging Application

=> NLP Project:- Speech To Text :

- ~ Introduction
- ~ Project Setup Speech To Text
- ~ Project Demo
- ~ Code Explanation
- ~ Project Workflow
- ~ Prediction with Postman
- ~ Debugging Application

=> NLP Project:- Spell Corrector :

- ~ Introduction
- ~ Project Setup Spell Corrector
- ~ Project Demo
- ~ Code Explanation
- ~ Project Workflow
- ~ Prediction with Postman
- ~ Debugging Application

=> NLP Project:- Named Entity Recognition :

- ~ NER using BERT

=> NLP Project:- Machine Translation & Keyword Spotting :

- ~ Machine Translation
- ~ Keyword Spotting

=> NLP Project:- Keyword Extractor & Summarization :

- ~ Keyword Extraction
- ~ Extractive Text Summarization

=> NLP project:- Paraphrasing :

- ~ Rephrase Project

=> BigData - Introduction to Big Data and Data Engineering :

- ~ Big Data Engineering

=> BigData - Introduction to Distributed Systems - Hadoop and MapReduce :

- ~ Big Data Engineering Introduction

=> BigData - Map Reduce & YARN :

- ~ Big Data Hadoop Map Reduce YARN
- ~ Hadoop Map Reduce Hands On

=> BigData - Hive :

- ~ Apache hive

=> BigData - Hive Hands On :

- ~ Apache hive Hands On

=> BigData - NoSQL and Hbase :

- ~ Big Data HBase
- ~ Hbase hands On

=> BigData - Sqoop :

- ~ Big Data Sqoop
- ~ Big Data Sqoop Hands On

=> BigData - Spark :

- ~ Spark - Introduction
- ~ Big Data Engineering using PySpark- RDDs
- ~ Spark hands on - RDD
- ~ Big Data Engineering using PySpark- Core, Internals, Architecture
- ~ Apache Spark Actions_ Transformations
- ~ Apache Spark Caching
- ~ Big Data Engineering using PySpark- Shared Vars , Coalesce Repartition
- ~ Big Data Engineering using PySpark- Dataframes
- ~ Spark hands on - Dataframe
- ~ Spark hands on - Databricks
- ~ Big Data Engineering using PySpark- Catalyst& Tungsten

=> BigData - Spark ML :

- ~ Big Data Engineering using PySpark- MLlib
- ~ Spark hands On - Spark ML Lib

=> BigData - Spark Streaming :

- ~ Big Data Engineering using PySpark- Streaming Part 1
- ~ Big Data Engineering using PySpark- Streaming Part 2
- ~ Spark hands On - Spark Streaming

=> BigData - Kafka :

- ~ Big Data Kafka
- ~ Big Data Kafka Hands on

=> BigData - Apache Airflow - Workflow Management Platform :

- ~ Big Data - Airflow
- ~ Big Data Airflow Hands On

=> Big Data Projects :

- ~ IoT Sensor data pipeline using Kafka-Spark Streaming
- ~ Product Recommendation Engine using Kafka-Spark Streaming
- ~ Short Video App Analytics

=> Basic Charts in Power BI :

- ~ 2.0 Basic Charts in Power BI Desktop
- ~ 2.1 Column Chart in Power BI
- ~ 2.2 Stacked Column Chart in Power BI
- ~ 2.3 Pie Chart in Power BI
- ~ 2.4 Donut Chart in Power BI
- ~ 2.5 Funnel Chart in Power BI
- ~ 2.6 Ribbon Chart
- ~ 2.7 Include and Exclude
- ~ 2.8 Export data from Visual

=> Working with Maps :

- ~ 3.1 Creating a Map in Power BI
- ~ 3.2 Filled Map
- ~ 3.3 Map with Pie Chart
- ~ 3.4 Formatting in Map
- ~ 3.5 Change Background in Map
- ~ 3.6 Map of India in Power BI
- ~ 3.7 Map of Australia in Power BI

=> Tables and Matrix in Power BI :

- ~ 4.0 Table and Matrix in Power BI
- ~ 4.1 Creating a Table in Power BI
- ~ 4.2 Formatting a Table

- ~ 4.3 Conditional Formatting in Table
- ~ 4.4 Aggregation in Table
- ~ 4.5 Matrix in Power BI
- ~ 4.6 Conditional Formatting in Matrix
- ~ 4.7 Hierarchy in Matrix
- ~ 4.8 Sub-Total and Total in Matrix
- ~ 4.9 Number Formatting in Table

=> Other Charts in Power BI :

- ~ 5.0 Other Charts in Power BI
- ~ 5.1 Line Chart in Power BI
- ~ 5.2 Drill Down in Line Chart
- ~ 5.3 Area Chart in Power BI
- ~ 5.4 Line vs Column Chart in Power BI
- ~ 5.5 Scatter Plot in Power BI
- ~ 5.6 Waterfall Chart in Power BI
- ~ 6.7 TreeMap in Power BI
- ~ 5.8 Gauge Chart in Power BI

=> Cards and Filters :

- ~ 6.0 Cards and Filters in Power BI
- ~ 6.1 Number Card
- ~ 6.2 Text Card
- ~ 6.2.1 Formatting of Text Card
- ~ 6.3 Date Card
- ~ 6.3.1 Date Card (Relative Filtering)
- ~ 6.4 Multi-Row Card
- ~ 6.5 Filter on Visual
- ~ 6.6 Filter on This Page
- ~ 6.7 Filter on All Pages
- ~ 6.8 Drillthrough in Power BI

=> Slicers in Power BI :

- ~ 7.0 Slicers in Power BI
- ~ 7.1 Text Slicers in Power BI
- ~ 7.2 Formatting a Text Slicer
- ~ 7.3 Date Slicers in Power BI
- ~ 7.4 Formatting a Date Slicer
- ~ 7.5 Number Slicers in Power BI

=> Introduction to tableau :

- ~ Tableau Introduction
- ~ Download and Install Tableau
- ~ Tableau Vs Excel

=> Charts - 1 :

- ~ Column Chart
- ~ Horizontal Bar Chart
- ~ Stacked Column Chart
- ~ Stacked Bar Chart
- ~ Keep Only, Exclude
- ~ Keep Only, Exclude2_Normal
- ~ Publish to Tableau Public

=> Charts - 2 :

- ~ Pie Chart
- ~ Multiple Pie Chart
- ~ TreeMap_Editing
- ~ Packed Bubble Chart
- ~ Word Cloud OR Word Map
- ~ Formatting payal

=> Charts - 3 :

- ~ Data Types in Tableau
- ~ Filled Map
- ~ Symbol Maps
- ~ India Map
- ~ Histogram

=> SQL :

- ~ Database Architecture
- ~ Introduction to SQL
- ~ Constraints
- ~ Data Definition Language (DDL)
- ~ Data Query Language (DQL)
- ~ Data Manipulation Language (DML)
- ~ Joins
- ~ Import Export
- ~ Aggregate Functions
- ~ Order by, Having & Limit Clause
- ~ String Functions
- ~ Datetime functions
- ~ Understanding Regular Expressions
- ~ Nested Queries
- ~ Views
- ~ Stored Procedures
- ~ WindowsFn
- ~ Python-SQL Connectivity

=> Excel :

- ~ Introduction to Excel

- ~ *Pre-defined functions*
- ~ *Datetime Functions*
- ~ *String functions*
- ~ *Mathematical functions*
- ~ *Lookup*
- ~ *Logical & Error Functions*
- ~ *Statistical Functions*
- ~ *Images in Excel*
- ~ *Excel Formatting*
- ~ *Custom Formatting*
- ~ *Conditional Formatting*
- ~ *Charts in Excel*
- ~ *Data Analysis using Excel*
- ~ *Pivot Tables*
- ~ *Dashboarding in Excel*
- ~ *Others*
- ~ *What-If Tools - Scenario Manager, Goal Seek*

ONNX

Topic Name : DATA SCIENCE

Sub-topic Name : DEEP LEARNING

Course link : <https://ineuron.ai/course/ONNX>

Course Description :-

The Open Neural Network Exchange (ONNX) is a free ecosystem that allows AI developers to select the best tools for their projects as they progress. ONNX is a free, open-source format for AI models, including deep learning and classical machine learning.

Course Features :-

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What you will learn :-

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Requirements :-

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Instructors :-

=> Boktiar Ahmed Bappy :

~ This is Bappy. I aim for simplicity in Data Science. Real Creativity won't make things more complex. Instead, I will simplify them, Interested in a Data Science Career and so develop myself accordingly. Data Scientist and lecturer with working experience in Machine Learning, Deep Learning, Microcontrollers and Electronics systems. Hands-on experience in classification, regression, clustering, computer vision, natural language processing and transfer learning models to solve challenging business problems. I have a huge interest in Robotics. I have innovated a lot of innovations, ideas, projects & robots and got a lot of achievements.

Curriculum details :-

=> ONNX :

- ~ Introduction of ONNX Preview
- ~ Challenges with Deep Learning
- ~ Open Neural Network Exchange
- ~ ONNX design principles
- ~ ONNX File Format
- ~ ONNX Data Types
- ~ Machine Learning demo
- ~ ONNX Runtime Preview
- ~ ONNX model zoo
- ~ ONNX - Model zoo demo
- ~ Pytorch to TensorFlow example

OpenCV

Topic Name : DATA SCIENCE

Sub-topic Name : COMPUTER VISION

Course link : <https://ineuron.ai/course/OpenCV>

Course Description :-

OpenCV (Open Source Computer Vision Library) is an open-source computer vision and machine learning software library. This course will guide you through your first steps in studying computer vision and artificial intelligence (AI) using OpenCV. You'll learn about Image & Video Manipulation, Image Enhancement, Filtering, Edge Detection, Object Detection, and Tracking, among other topics.

Course Features :-

- => Source Code
- => Downloadable resources
- => Assignments
- => Quizzes
- => Completion certificate
- => Detailed discussion on every topic

What you will learn :-

- => Basics to advance level of OpenCV
- => Image annotation
- => Mouse click events
- => Image processing
- => Feature matching
- => Corner detection and many more

Requirements :-

- => No prior knowledge in OpenCV
- => Basic knowledge in Python programming
- => A system with a decent internet connection
- => Dedication

Instructors :-

- => Ashish Kushwaha :
 - ~ Worked in various Machine Learning, Deep Learning, Data Science and Image Processing projects. he has expertise in Python Programming.
 - Currently he is working as a freelancer & tutor & teaching many students from different regions across the globe.

Curriculum details :-

- => OpenCV basics :
 - ~ Installation of OpenCV Preview
 - ~ Read and display images
 - ~ Pycharm IDE installation
 - ~ Read the live video feed from webcam and display
 - ~ Saving an image file
 - ~ Saving a video file
 - ~ Image resizing and rescaling
- => Image annotation :
 - ~ Drawing a line on the image Preview
 - ~ Drawing a circle on the image
 - ~ Draw geometric shapes on images
 - ~ Write text on image
 - ~ Display the FPS on image
- => Mouse click events :
 - ~ What is mouse click events?
 - ~ How to use mouse click events?
 - ~ Getting the coordinates of the mouse click events
 - ~ Use mouse as a paint brush
 - ~ Using mouse to change the colors
- => Image processing :
 - ~ Changing color spaces (BGR2RGB, Grey scale, HSV and etc.)
 - ~ Geometric transformation of the images
 - ~ Scaling
 - ~ Translation

- ~ *Warning*
- ~ *Rotation*
- ~ *Affine transformation*
- ~ *Perspective transformation*
- ~ *Image threshold*
- ~ *Smoothing images*
- ~ *Image gradients*
- ~ *Canny edge detection*
- ~ *Contours in OpenCv*
- ~ *Histograms*
- ~ *Template matching*
- ~ *Hough line transform*
- ~ *Hough circle transform*
- ~ *Cascades*
- ~ *Image segmentation with Watershed algorithm*

=> **Advanced OpenCv :**

- ~ *Corner detection*
- ~ *SIFT, SURF, FAST, BRIEF, ORB*
- ~ *Feature matching*
- ~ *Feature Matching + homograph*
- ~ *Image denoising*
- ~ *Image inpainting*

Android P with Machine Learning Apps

Topic Name : MOBILE DEVELOPEMENT

Sub-topic Name : ANDROID

Course link : <https://ineuron.ai/course/Android-P-with-Machine-Learning-Apps>

Course Description :-

Learning Android Development with Machine Learning will look great on any Android developer's CV. Machine Learning is a kind of Artificial Intelligence (AI) that allows software to learn, explore, and predict outcomes without the need for human intervention. Machine learning has been employed in a variety of industries, and it is currently being actively used to the creation of mobile applications. Machine learning algorithms can analyse specific user activity patterns and respond to search queries with ideas and recommendations. This course will teach you how to use Android with Machine Learning .

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Android Studio fundamentals
- => Theme customization
- => Buttons and toasts
- => Fully customized Gradles
- => Android elements and components
- => SQLite database
- => JSON and APIs
- => Firebase
- => Machine Learning in Android
- => Various projects

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

- => Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

- => Introduction to Android P development :
 - ~ Pep talk - Do not skip
 - ~ Tools that we will need
 - ~ Android History
- => Windows installation and setup :
 - ~ Installation of Android studio in WINDOWS
 - ~ AVD configuration and Hello world for WINDOWS
- => MAC setup and installation :
 - ~ Installation of Android - MAC
 - ~ Setting up Android Virtual device and config
- => Tour theme and App icons :
 - ~ Creating a project - API levels
 - ~ Exploring files in dir structure
 - ~ A tour of Android studio and customization - part 1
 - ~ A tour of Android studio and customization - part 2

- ~ Theme customisation and app on real device
- ~ Problems in App icon - Customization

=> Buttons and toasts :

- ~ Button Customization
- ~ Click events for buttons
- ~ Assignment Solution
- ~ Methods and buttons
- ~ Basics of Toast and assignment
- ~ Shorter toasts

=> Fully Customized Toasts and Gradles :

- ~ Basics setup for custom layouts
- ~ Preparing custom layouts
- ~ Customized layout inflation
- ~ Designing Elements in Linear layout
- ~ Gradle documentation
- ~ Final customization with gradle

=> Components Tour of Android elements :

- ~ Components tour
- ~ Exploring text fields
- ~ Buttons and widgets in android
- ~ Understand layouts in Android

=> Dice Roller app :

- ~ Designing assets for dice game
- ~ UI for DiceRoller
- ~ Writing code for diceRoller
- ~ Your assignment for this section

=> Fun Background app :

- ~ Fun Background Design
- ~ Code part - fun background app

=> Animated Login App :

- ~ Design assets for project AnimatedLogin
- ~ Applying animations in layout
- ~ Button Customization for app
- ~ Everything about button Customization
- ~ 1 more thing about buttons

=> Truth Dare Game :

- ~ Setting up UI for Truth dare game
- ~ Code for Game and assignment

=> Components of Android App :

- ~ Country Selector App - UI
- ~ Country Selector App - Code
- ~ Quick Change App
- ~ Burger Rating app - UI
- ~ Burger Rating app - code and assignment
- ~ Seekbar implementation
- ~ Uploader App UI
- ~ Uploader App Code with thread
- ~ Date Time picker in Android

=> Currency Converter app :

- ~ Design of currency Converter app
- ~ Design of currency Converter app part 2
- ~ Handling Empty input and Assignment

=> 3 Apps - Drumpad, examTimer, Music Player :

- ~ Going to a new screen

=> 4 Apps - Drumpad, examTimer, Music Player :

- ~ Passing multiple values from intent

=> 5 Apps - Drumpad, examTimer, Music Player :

- ~ MediaPlayer Class

=> 6 Apps - Drumpad, examTimer, Music Player :

- ~ Setting layout for DrumPad App

=> 7 Apps - Drumpad, examTimer, Music Player :

- ~ DrumApp code and assignment

=> 8 Apps - Drumpad, examTimer, Music Player :

- ~ Exam Timer App design

=> 9 Apps - Drumpad, examTimer, Music Player :

- ~ MediaPlayer App UI

=> 10 Apps - Drumpad, examTimer, Music Player :

- ~ Exam Timer App code and sound

=> 11 Apps - Drumpad, examTimer, Music Player :

- ~ Finishing Music Player app and Rockers

=> Recycler and Card Views :

- ~ Recycler and Card Views Introduction
- ~ Custom layouts and getters
- ~ ArrayList for views
- ~ 10 Step guide for custom adapters
- ~ Main config for Insta cards

- ~ Refractoring the data
- ~ Add and remove Cards

=> SQLiteDatabase App - Student Record :

- ~ Introduction to database - UI setup
- ~ Database Helper introduction
- ~ Insert and Update data using helper
- ~ CRUD helper in Sqlite
- ~ Helper for showing messages
- ~ Adding data in sqlite
- ~ Getting data and handling cursor
- ~ Getting all data at once
- ~ Update and deletion of data

=> Jason and API apps :

- ~ What is API and JSON
- ~ Converting regular objects in JSON
- ~ Json to regular objects and Serialized name
- ~ Objects inside an object
- ~ Array in an object
- ~ Volley and API Introduction
- ~ Fetching an API request
- ~ Singleton in Volley

=> Firebase - Amazing Online database :

- ~ Section Intro
- ~ What is Firebase?
- ~ Exploring Firebase for Android
- ~ Setting layout for login system
- ~ User Registration System
- ~ User login & logout
- ~ Firebase Database - Rock Paper Scissor Online Game
- ~ Understanding Firebase Database
- ~ Running game on multiuser
- ~ Setting user registration system to database UI
- ~ Setting user registration system to database - code
- ~ Getting complex user data from database
- ~ Firebase Image Uploader Part 1
- ~ Firebase Image Uploader Part 2

=> Machine learning - Face and Smile detection app :

- ~ Machine Learning KIT in Firebase
- ~ Connecting with MLKIT online
- ~ Custom assets and gradle
- ~ Firebase app initializer
- ~ Inflating result dialog box
- ~ Open a camera on a REAL device
- ~ Final code for Face and smile detection

=> Machine Learning - Text Detection app :

- ~ Text Recognition app
- ~ How to download exercise files
- ~ Adding Custom Assets
- ~ Firebase initializer
- ~ Result Activity
- ~ Firecamera in our app
- ~ Text Recognition and Debug

=> How to publish app on store :

- ~ How to publish app on store

Linux Live Class

Topic Name : DEVOPS

Sub-topic Name : LINUX

Course link : <https://ineuron.ai/course/Linux-Live-Class>

Course Description :-

This Linux course looks at the tools and techniques that Linux system administrators and end-users use on a daily basis to complete their tasks in a Linux environment.

Course Features :-

- => Online classes
- => Doubt Clearing
- => Live-Class Recording
- => Real-time Project
- => Assignment in all modules
- => Quiz in every module
- => Career Counselling
- => Completion Certificate

What you will learn :-

- => Linux Introduction
- => Setting up Our Linux Space
- => Linux Concepts
- => Package Management
- => Linux Commands
- => Working with Terminal
- => Permissions & Security

Requirements :-

- => A system with Internet Connection
- => Your dedication

Instructors :-

=> Sourangshu Pal :

~ Visual Computing Engineer and instructor at iNeuron.ai having 3 years of diverse experience in the discipline of visual computing with specialization in Deep Learning and Computer Graphics. Loves to analyze, process, and model visual data then interpret the insights to create actionable plans for solving challenging business problems.

Curriculum details :-

=> Linux Introduction :

- ~ Introduction to Linux
- ~ What is Linux
- ~ Important Pieces in Linux
- ~ Features of Linux
- ~ Evolution of Linux
- ~ Differences between Windows and Linux

=> Setting up Our Linux Space :

- ~ Downloading Necessary tools
- ~ Installing Ubuntu in Windows
- ~ What is SSH?
- ~ Install SSH Clients
- ~ Setting up SSH in Ubuntu VM
- ~ How to do SSH to your Ubuntu VM?
- ~ Setting Up Passwordless SSH

=> Linux Concepts :

- ~ What is Kernel
- ~ Types of Kernel
- ~ What is Shell
- ~ Types of Shell
- ~ Distros in Linux
- ~ Linux Boot Process
- ~ File System
- ~ RunLevels in Linux
- ~ Filetypes of Linux

=> Package Management :

- ~ *Package Management*
- ~ *Package Managers & DPKG*
- ~ *Working with APT & APT GET*
- ~ *Apt-get Advanced Part 1*
- ~ *Apt-get Advanced Part 2*

=> Linux Commands :

- ~ *Linux Commands Part1*
- ~ *Linux Commands Part2*
- ~ *Linux Commands Part3*
- ~ *Linux Commands Part4*
- ~ *Cat Command Usages*

=> Working with Terminal :

- ~ *File Archival*
- ~ *File Compression*
- ~ *Files and Patterns Search*
- ~ *Input-Output Redirection*
- ~ *Working with Vi Editor*
- ~ *Advanced Vi Editor Part 1*
- ~ *Advanced Vi Editor Part 2*

=> Permissions & Security :

- ~ *Types of Account in Linux*
- ~ *User Management*
- ~ *Group Management*
- ~ *Files Access Controls*
- ~ *Linux File Permissions*
- ~ *Modifying File Ownership*
- ~ *Sudoers in Linux*
- ~ *Cronjobs*
- ~ *SCP*
- ~ *Special Permissions*
- ~ *System Management*
- ~ *System tools*
- ~ *Hard link and Soft link*
- ~ *Aliasing in Linux*
- ~ *Creating users in Multiple ways*

=> Linux in AWS Cloud- Deploy an App in EC2 :

- ~ *Launching an Ubuntu VM and SSH Setup*
- ~ *Package installation in VM*
- ~ *Running our Calculator App*
- ~ *Gunicorn & Nginx Setup*
- ~ *Creating a Gunicorn Service*
- ~ *Attaching an Elastic IP*
- ~ *Attaching OpenSSL Certificates for HTTPS*

Topic Name : DATA ANALYTICS

Sub-topic Name : DASHBOARDING

Course link : <https://ineuron.ai/course/MSBI>

Course Description :-

The MSBI course is meant to give you an overview of the various tools in the Microsoft Business Intelligence Suite, such as SQL Server Integration Services, SQL Server Analysis Services, and SQL Server Reporting Services.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Introduction to MSBI Fundamentals
- => Downloading sql server
- => Installing visual studio
- => Data Flow,Control Flow, ETL demo
- => Parameters and Debugging
- => Packaging, Deployment and Running SSIS package
- => Fact ,Dimensions and star schema
- => Database Daigram
- => Shared Connection Manager and Package tasks
- => SCD, Type 0 and Type 1 Attribute
- => LookUp and Updating SSIS Package
- => Sort,Merge and Merge Joins

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

- => MD Imran :
 - ~ Working as Data Scientist with experience in solving real world business problems across different domains.

Curriculum details :-

- => MSBI :
 - ~ Introduction to MSBI Fundamentals
 - ~ Downloading sql server
 - ~ Installing visual studio
 - ~ Data Flow,Control Flow, ETL demo
 - ~ Conditional split, data conversion and error handling
 - ~ For Loop, Variables
 - ~ Parameters and Debugging part 1
 - ~ Parameters and Debugging part 2
 - ~ Parameters and Debugging part 3
 - ~ Packaging, Deployment and Running SSIS package part 1
 - ~ Packaging, Deployment and Running SSIS package part 2
 - ~ Packaging, Deployment and Running SSIS package part 3
 - ~ Packaging, Deployment and Running SSIS package part 4
 - ~ Packaging, Deployment and Running SSIS package part 5
 - ~ Fact ,Dimensions and star schema Part 1
 - ~ Fact ,Dimensions and star schema Part 2
 - ~ Fact ,Dimensions and star schema Part 3
 - ~ Database Daigram
 - ~ Shared Connection Manager and Package tasks part 1
 - ~ Shared Connection Manager and Package tasks part 2
 - ~ SCD, Type 0 and Type 1 Attribute part 1

- ~ *SCD, Type 0 and Type 1 Attribute part 2*
- ~ *SCD, Type 0 and Type 1 Attribute part 3*
- ~ *LookUp and Updating SSIS Package*
- ~ *Sort, Merge and Merge Joins*
- ~ *Creating SSAS CUBE (SSAS) part 1*
- ~ *Creating SSAS CUBE (SSAS) part 2*
- ~ *SSAS Time series and Display result in Excel part 1*
- ~ *SSAS Time series and Display result in Excel part 2*
- ~ *Transactions and Checkpoints*
- ~ *SSRS report and implementing Matrix, Tabular Report*

AIOps Interview Questions

Topic Name : DATA SCIENCE

Sub-topic Name : MLOPS INTERVIEW PREPARATION

Course link : <https://ineuron.ai/course/AIOps-Interview-Questions>

Course Description :-

Artificial Intelligence Operations is the most in-demand technical skill (AIOps). It facilitates the use of DevOps techniques in the creation of AI products. This course will cover a variety of approaches to implementing AIOps methodology in machine learning and deep learning projects, including implementation on AWS, Azure, Google Cloud Platform, and DigitalOcean.

Course Features :-

- => Challenges
- => Quizzes
- => Assignments

What you will learn :-

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Requirements :-

- => A system with stable internet connection
- => Your dedication

Instructors :-

=> Sunny Bhaveen Chandra :

~ Sr. Data Scientist and lecturer at iNeuron.ai with working experience in computer vision, natural language processing and embedded systems. Hands-on experience leveraging machine learning, deep learning, transfer learning models to solve challenging business problems. Also, he has a vast interest in Robotics.

=> Sourangshu Pal :

~ Visual Computing Engineer and instructor at iNeuron.ai having 3 years of diverse experience in the discipline of visual computing with specialization in Deep Learning and Computer Graphics. Loves to analyze, process, and model visual data then interpret the insights to create actionable plans for solving challenging business problems.

Curriculum details :-

- => Interview Questions :
 - ~ AI Ops Question Discussion Part 1 Preview
 - ~ AI Ops Question Discussion part 2

Fundamentals of Web Designing

Topic Name : K12

Sub-topic Name : CLASS10

Course link : <https://ineuron.ai/course/Fundamentals-of-Web-Designing>

Course Description :-

This course will teach about web development by making real websites from scratch with HTML and CSS. You can start by creating a website and that's one of the best ways to learn to code. This Skill Path will help you build strong fundamentals of HTML and CSS to define the structure and beauty of your website.

Course Features :-

- => Online Instructor-led learning
- => Practical Implementation
- => Integrate academic knowledge with the tech
- => Real-time Project
- => Live Class Recording
- => One to One Doubt Clearing
- => Assignment in all the Module
- => Quiz in every Module
- => Career Counselling
- => Completion Certificate

What you will learn :-

- => Introduction to the course
- => HTML Basic formatting tags
- => HTML Basic Formatting Tags
- => Grouping Tags
- => HTML Hyperlink
- => HTML Headers
- => CSS
- => CSS Selectors
- => CSS Background Cursor
- => CSS Text font
- => CSS List Style
- => CSS Box Models
- => CSS Display Positioning
- => CSS Advanced
- => Hands-on Projects

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Monal Kumar :

~ Monal Kumar is a data scientist and instructor working at iNeuron having 2+ years of total experience in both service and product-based organisations. He is specialised in Deep Learning, Computer vision and Image processing. Previously, he held positions as a support configurator at Wipro Technologies and as a Deep Learning researcher at Harptec Research. Offering the finest possible services to his clients. In addition to his primary job function, he is recognised for his creativity and ideas that change the nature of the existing problem.

Curriculum details :-

- => Introduction to the course :
 - ~ Course Introduction
 - ~ Who this course for?
 - ~ Course Outcome
 - ~ Basics of Internet
 - ~ What is Web Development?
 - ~ What is Web Designing?

- ~ *What is Frontend?*
- ~ *What is Backend?*
- ~ *What is Website?*
- ~ *Differernt technologies in making the website*

=> Assignment1 :

- ~ *What are the technologies used for Front End Development?*

=> HTML Introduction :

- ~ *History of HTML*
- ~ *What are HTML Tags and Attributes?*
- ~ *HTML Tags vs. Element*
- ~ *Anatomy of an HTML element*
- ~ *Nesting elements*
- ~ *Images*
- ~ *Headings*
- ~ *Paragraphs*
- ~ *Lists*
- ~ *Links*
- ~ *Forms*

=> HTML Basic Formatting Tags :

- ~ *HTML Headings*
- ~ *HTML basic tags*
- ~ *HTML Fomattting tags*
- ~ *HTML Colour coding*

=> Grouping Tags :

- ~ *Div and Span Tags for grouping*

=> HTML Lists :

- ~ *Ordered list*
- ~ *Unordered list*

=> HTML Images :

- ~ *Image and Image Mapping*

=> HTML Hyperlink :

- ~ *Uniform Resource Locator*
- ~ *What is a Uniform resource locator?*
- ~ *URL Encoding*

=> HTML Table :

- ~ *What is Table in HTML?*
- ~ *Different types of HTML Tags used in Table*

=> HTML Forms :

- ~ *What are Forms in HTML?*
- ~ *Different types of HTML tags used in Forms*

=> HTML Headers :

- ~ *Title*
- ~ *Base*
- ~ *Link*
- ~ *Styles*
- ~ *Script*
- ~ *Meta*

=> Assignment2 :

- ~ *Create a Portfolio webpage with your photo, bio, and personal details with your Family members*

=> HTML 5 :

- ~ *What exactly Is HTML5?*
- ~ *Block vs. Inline Elements - Divs and Spans*
- ~ *An Odd Assortment of Elements: HR, BR, Sup and Sub*
- ~ *Entity Codes*
- ~ *Intro to Semantic Markup*
- ~ *Playing with Semantic Elements*
- ~ *Screen Reader Demonstration*
- ~ *Introducing HTML Tables*
- ~ *Tables: TR, TD, and TH Elements*
- ~ *Tables: Thead, Tbody, and Tfoot Elements*
- ~ *Tables: Colspan & Rowspan*
- ~ *The Form Element*
- ~ *Common Input Types*
- ~ *HTML Buttons*
- ~ *The Name Attribute*
- ~ *Radio Buttons, Checkboxes, & Selects*
- ~ *Range & Text Area*
- ~ *HTML5 Form Validations*

=> Assignment3 :

- ~ *Create a webpage and display images of all the visiting places in your city and add their descriptions.*
- ~ *Favorite trip: If you could take the perfect trip, where would you go?*

What animals would you see? What food would you eat? Add images

to this webpage after each paragraph tag, to share your perfect trip with the world.

~ *Wishlist: What do you wish for? In this, you'll make a Wishlist, a list of activities you want to do or things you want to have.*

=> CSS :

- ~ *What is CSS?*
- ~ *Benefits of CSS*

- ~ CSS versions history
- ~ CSS syntax
- ~ External style sheet using `<link>`
- ~ Multiple stylesheet

=> CSS Selectors :

- ~ Id Selectors
- ~ Class Selectors
- ~ Grouping Selectors
- ~ Universal Selectors
- ~ Descendant Selectors
- ~ Attribute Selectors

=> CSS Background Cursor :

- ~ Background-Image
- ~ Background-Repeat
- ~ Background-Position
- ~ CSS cursor

=> CSS Text font :

- ~ Colour
- ~ Background colour
- ~ Text-decoration
- ~ Text-align
- ~ Text-transform
- ~ White space
- ~ Letter-spacing
- ~ Word-spacing
- ~ Line-height
- ~ Font family
- ~ Font-style
- ~ Font-variant

=> CSS List Style :

- ~ List style type
- ~ List style position
- ~ List style image

=> CSS Box Models :

- ~ Borders and Outline
- ~ Margin and Padding
- ~ Height and Width
- ~ CSS Dimensions

=> CSS Display Positioning :

- ~ CSS Visibility
- ~ CSS Scrollbar
- ~ CSS Display
- ~ Static Positioning
- ~ Fixed Positioning
- ~ Relative Positioning
- ~ Absolute Positioning

=> CSS float :

- ~ The float property
- ~ The clear property

=> Assignment4 :

- ~ Modify the personal portfolio website build using HTML by adding different styles using CSS.
- ~ Create a Blog web page on your favorite topic (Example: History, Biology, Physics, Science, etc.)

=> Project1 :

~ Create an interactive website for your school and include different web pages like homepage, about page, facilities page, and fee structure page.

=> Project2 :

~ Create and design a documentation website that will have subjects, important subtopics, and notes on that topics. Also, have an MCQs page that will provide the score after completing the test.

MLflow

Topic Name : DATA SCIENCE

Sub-topic Name : MLOPS

Course link : <https://ineuron.ai/course/MLflow>

Course Description :-

This program is meant to give you the basics till an advanced understanding of one of the most popular ML cycle management frameworks - MLflow. Course curriculum includes concepts about the MLflow framework, tutorials, and much more!

Course Features :-

- => Learning of different concepts of MLflow to manage ML lifecycle
- => Self Paced Videos
- => Completion Certificate

What you will learn :-

- => Basic concepts
- => Installation
- => MLflow use cases
- => Apply MLflow to track your ML/DL experiments, Package Project, Serve model, and manage and register model

Requirements :-

- => Interest to learn
- => ML and DL course
- => Machine Learning and Deep learning concepts
- => Decent internet connection

Instructors :-

=> Sunny Bhavleen Chandra :

~ Sr. Data Scientist and lecturer at iNeuron.ai with working experience in computer vision, natural language processing and embedded systems. Hands-on experience leveraging machine learning, deep learning, transfer learning models to solve challenging business problems. Also, he has a vast interest in Robotics.

Curriculum details :-

=> Section: 1 MLflow Introduction :

- ~ Introduction to MLflow
- ~ Installation and first trial of MLflow

=> Section: 2 MLflow Tracking :

- ~ Simple ML model
- ~ Logging our simple ML model using
- ~ Exploring UI of MLflow
- ~ Packaging a project MLflow way

Azure Fundamentals

Topic Name : CLOUD

Sub-topic Name : AZURE

Course link : <https://ineuron.ai/course/Azure-Fundamentals>

Course Description :-

The use of cloud computing is growing rapidly across all industries, opening up a slew of new job prospects. A wide range of positions is available, from developers and architects to security specialists and data scientists. As a result of this course, you will be prepared to begin your Microsoft Azure certification journey confidently. For the AZ-900 certification exam and your cloud career, you'll need a solid foundation of core knowledge from our Microsoft Azure Fundamentals AZ-900 Exam Prep Specialization. This program's content purely matches the AZ-900 test objectives.

Course Features :-

- => Real-Time implementation
- => ML/DL model testing and monitoring
- => Scenario-based questions
- => Challenges
- => Downloadable resources
- => Quizzes
- => Completion certificate

What you will learn :-

- => You will understand cloud concepts
- => Learn about core Azure services
- => Master security, privacy
- => Compliance and trust
- => Understand Azure pricing and support
- => Students who wish to start learning how to use the Azure platform

Requirements :-

- => Computer with i3 and above configuration
- => Azure free or paid account
- => Your dedication

Instructors :-

- => MD Imran :
 - ~ Working as Data Scientist with experience in solving real world business problems across different domains.

Curriculum details :-

- => Introduction :
 - ~ Introduction to cloud computing Preview
 - ~ Cloud models
 - ~ Different cloud providers
- => Regions and Availability Zones :
 - ~ Understanding regions and availability zones in Azure Preview
 - ~ Creating Microsoft Azure account
- => Azure Virtual Machines :
 - ~ Topics covered in this section
 - ~ Getting started with Azure virtual machines
 - ~ Creating your first virtual machine in azure
 - ~ Connecting to the Azure virtual machine and running commands
 - ~ Connecting SSH
 - ~ Understanding Azure VM-key concepts
 - ~ Installing Nginx on Azure virtual machine
 - ~ Simplifying installing software on the Azure virtual machine
 - ~ Increasing availability for azure VM
 - ~ Virtual machine scale sets
 - ~ Exploring scaling and load balancing
 - ~ Static IP, monitoring and reducing costs
 - ~ Designing a good solution with Azure VM
 - ~ Exploring Azure virtual machine scenarios
- => Compute Services :
 - ~ Topics covered in this section
 - ~ Getting started with Azure app services

- ~ *Creating your first Azure web app using app service*
- ~ *Exploring Azure app service*
- ~ *Getting started with containers*
- ~ *Azure container instances*
- ~ *Getting started with serverless*
- ~ *Azure functions*
- ~ *Building workflows logic apps*
- ~ *Azure responsibility model*
- ~ *Exploring Azure cloud service categories scenarios*
- ~ *Review Azure compute services*
- ~ *Deleting resource group*

=> Storage Service :

- ~ *Getting started with Azure storage*
- ~ *Managed and unmanaged block storage in Azure*
- ~ *Getting started with Azure file storage*
- ~ *Exploring Azure file storage*

=> Databases :

- ~ *Getting started with databases*
- ~ *Snapshot and standby*
- ~ *Availability and durability*
- ~ *How to achieve availability and durability*
- ~ *Understanding database fundamentals RTO and RPO*
- ~ *Data consistency*
- ~ *Understanding how to choose a database*
- ~ *Relational databases*
- ~ *Exploring OLTP relational databases in azure*
- ~ *Creating mysql server in azure*
- ~ *Playing with mysql server in azure*
- ~ *Azure synapse analytics*
- ~ *Azure nosql database*
- ~ *Azure cosmos DB*
- ~ *Azure cache for redis*
- ~ *Review databases in azure*

=> Networking :

- ~ *Understanding need for azure network*
- ~ *Understanding need for subnets*
- ~ *Playing with azure virtual network*
- ~ *Azure virtual network important things to remmber*
- ~ *Exploring azure Ddos Services*
- ~ *Exploring Azure Firewall*
- ~ *Network security groups*
- ~ *Security Best practices*
- ~ *Deployment models review*
- ~ *VPN and ExpressRoute*

=> Resource Hierarchy :

- ~ *Understanding Resource Hierchy*
- ~ *Demo on Resource Hierchy*
- ~ *Resource groups,subscription and managment groups*

=> Azure Active Directory :

- ~ *Active Directory part 1*
- ~ *Active Directory part 2*

=> Security and identity management :

- ~ *Azure security center*
- ~ *Azure Sentinel*
- ~ *Azure Key Vault*
- ~ *Azure key vault demo part 1*
- ~ *Azure key vault demo part 2*
- ~ *Role based Access control (RBAC)*
- ~ *Role based Access control (RBAC) demo*

=> Compliance, privacy and governance :

- ~ *Azure Resource Locks*
- ~ *Azure resource Tags*
- ~ *Azure policy*
- ~ *Azure Blueprint*
- ~ *Cloud adoption framework for azure*
- ~ *Core tenets of security, privacy, compliance*

=> Managing costs :

- ~ *Cost affecting factors*
- ~ *Cost reduction methods, reservations*
- ~ *Azure cost management*

=> Azure support and guarantees :

- ~ *Exploring azure support plans*
- ~ *Automate azure recommendations with advisor*
- ~ *Monitoring azure with azure monitor*
- ~ *Monitoring azure service status with service health*
- ~ *Exploring azure management services*
- ~ *SLA and composite SLA in Azure*
- ~ *Service lifecycle in azure*

Mastering DSA with Java

Topic Name : DATA STRUCTURE

Sub-topic Name : DSA WITH JAVA

Course link : <https://ineuron.ai/course/Mastering-DSA-with-Java>

Course Description :-

This course has been designed to help you become a complete and professional Java developer at the conclusion of the course, rather than only teaching essential Java skills.. After completing this course, you will have a thorough understanding of various Data Structures and Algorithms in Java which will further enhance your career as a java developer.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Problem Solving
- => Time-based DSA
- => Big O notation
- => Time and space complexity
- => Recursion
- => Power program theory
- => Combination theory
- => Stacks,queues,linked lists,trees
- => Searching, sorting, hashing

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

- => Introduction to DSA :
 - ~ Why we need Data structures and algorithms
 - ~ Time based approach
 - ~ Concept of Big O and graphs
 - ~ Data Structures and Algorithms HB
- => Problem Solving :
 - ~ Start with a challenge - reverse string
 - ~ Reverse a string - solution
 - ~ Interview approach to solve a problem
 - ~ Classic interview steps for DSA problems
- => Data Structure Introduction :
 - ~ Memory process - Stack and Heap
 - ~ Physical and logical data structures
 - ~ Abstract Data Types - ADT
- => Recursion in depth :
 - ~ Introduction to recursion
 - ~ Tracing the recursion tree
 - ~ Trace tree assignment
 - ~ Trace tree solution
 - ~ Types of Recursion

- ~ Complex recursion tree
- ~ What is Factorial
- ~ DSA08 Factorial program in JAVA
- ~ Fibonacci series THEORY
- ~ Fibonacci series and its version JAVA Code
- ~ What is Power Program
- ~ Power Program JAVA code
- ~ What is a Combination Program
- ~ Combination Program JAVA code
- ~ Classic Tower of Hanoi problem
- ~ Classic Tower of Hanoi JAVA code

=> Linked List in depth :

- ~ Introduction to Linked List
- ~ Add value in linked list - cases
- ~ Push Append and insertat in LinkedList - JAVA code
- ~ Deletion of linked list THEORY.
- ~ Deletion in linked list JAVA code
- ~ Delete complete linked list JAVA code
- ~ Count all nodes in linkedlist JAVA code
- ~ Reversing a linked list THEORY
- ~ Reversing a linked list JAVA code

=> Circular Linked List in Depth :

- ~ Circular linked list THEORY
- ~ Circular Linked List push JAVA code
- ~ Traverse a circular linked list JAVA code
- ~ Deletion in circular linked list JAVA code
- ~ count nodes in circular linked list JAVA code
- ~ convert linked list to circular linked list JAVA code

=> Doubly Linked List in Depth :

- ~ Theory for doubly linked list
- ~ Doubly linked list push JAVA code
- ~ Insert After in doubly linked list JAVA code
- ~ add to last in doubly linked list JAVA code
- ~ Traverse a doubly linked list JAVA code
- ~ Deleting a node in doubly linked list JAVA code

=> Stack and Queue :

- ~ Stack - Push and Pop operation THEORY
- ~ Stack operations with JAVA code
- ~ Queue concept THEORY
- ~ Queue implementation in JAVA code
- ~ Circular queue THEORY
- ~ Circular queue JAVA code

=> Binary Search Tree :

- ~ What is Binary Search tree and creation THEORY update
- ~ Insertion and Deletion in BST THEORY
- ~ InOrder Traversal of BST THEORY
- ~ Pre Order traversal in BST THEORY
- ~ Post order traversal in BST THEORY
- ~ Creating a Binary Search tree JAVA code
- ~ search a key in BST JAVA code
- ~ Insertion in BST JAVA code
- ~ deletion of key in BST JAVA code
- ~ inorder preorder and postorder traversal in BST JAVA code

=> Hashing :

- ~ What is Hashing THEORY
- ~ Hash chaining with linked list
- ~ Linear Hash Shifting
- ~ Square hash shifting

=> AVL Tree :

- ~ What is AVL tree and height
- ~ Finding balance factor
- ~ Left Left and Right Right Rotation in AVL Tree
- ~ LR and RL rotation with 1 trick
- ~ Creating a AVL tree - Important
- ~ Deletion in AVL Tree.

=> HEAP :

- ~ Heap - Max and min Heap
- ~ Insertion and deletion in HEAP

=> Sorting algorithms :

- ~ Categories of sorts
- ~ Selection sort - Theory
- ~ Selection sort - Java Code
- ~ Bubble Sort - Theory
- ~ Bubble Sort - Java Code
- ~ Insertion sort - Theory
- ~ Insertion sort - Java Code
- ~ Quick Sort - Theory
- ~ Quick Sort - Theory part 2
- ~ Counting Sort - Theory
- ~ Merge Sort Theory
- ~ Merge sort JAVA code
- ~ Counting Sort - Java Code

Pro Max Interview Preparation Edition 1

Topic Name : APTITUDE

Sub-topic Name : APTITUDE

Course link : <https://ineuron.ai/course/Pro-Max-Interview-Preparation-Edition-1>

Course Description :-

Pro Max Edition 1. These are interview preparation tests with a singular goal, to make sure you get a little better in real-world interviews. Leaderboards are ranked based on 1st attempt.

Course Features :-

- => Quizzes
- => Course completion certificate

What you will learn :-

- => Interview Preparation Theoretical Test
- => Interview Preparation Practical Test

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to solve

Curriculum details :-

- => Interview Preparation Test :
 - ~ Interview Preparation Test 1
 - ~ Interview Preparation Test 2
 - ~ Interview Preparation Test 3
 - ~ Interview Preparation Test 4
 - ~ Interview Preparation Test 5
 - ~ Interview Preparation Test 6

Data Science Masters

Topic Name : DATA SCIENCE

Sub-topic Name : FULL STACK DATA SCIENCE

Course link : <https://ineuron.ai/course/Data-Science-Masters>

Course Description :-

This is a data science masters course where you will learn all the stack required to work in data science, data analytics and big data industry including ML ops and cloud infrastructure .

Course Features :-

- => Full stack Data Science masters certification
- => 56 + hands-on industry real-time projects.
- => 500 hours of recorded classes.
- => Lifetime Dashboard access
- => Assignment in all the module
- => Quiz in every module
- => A live project with real-time implementation

What you will learn :-

- => Python
- => Stats
- => Machine learning
- => Deep learning
- => Computer vision
- => Natural language processing
- => Data analytics
- => Big data
- => ML ops
- => Cloud
- => Data structure and algorithm
- => Architecture
- => Domain wise project
- => Databases
- => Negotiations skills
- => Mock interview
- => Interview preparation
- => Resume building after every module

Requirements :-

- => Dedication
- => Computer with i3 and above configuration

Instructors :-

=> Sunny Bhaveen Chandra :

~ Sr. Data Scientist and lecturer at iNeuron.ai with working experience in computer vision, natural language processing and embedded systems. Hands-on experience leveraging machine learning, deep learning, transfer learning models to solve challenging business problems. Also, he has a vast interest in Robotics.

=> Sourangshu Pal :

~ Visual Computing Engineer and instructor at iNeuron.ai having 3 years of diverse experience in the discipline of visual computing with specialization in Deep Learning and Computer Graphics. Loves to analyze, process, and model visual data then interpret the insights to create actionable plans for solving challenging business problems.

=> Khushali Shah :

~ A data scientist having rich experience working with MNCs and start-ups in the field of data science and machine learning. She has expertise in Chatbot development for various domains & been developing professionally for 6+ years with diverse job history. She also had positions in software module development, web app development, functional designs, requirement gathering, client interaction, and server setup/admin & can help everywhere in the stack; she loves wearing multiple hats to an extent. She also believes in enhancing her skills by training and learning new things day by day.

=> krish naik :

~ Having 10+ years of experience in Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

=> Sudhanshu Kumar :

~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

=> Course Introduction :

- ~ course overview and dashboard description
- ~ Introduction of data science and its application in day to day life
- ~ Programming language overview
- ~ Installation (tools: sublime, vscode, pycharm, anaconda, atom, jupyter notebook, kite)
- ~ Virtual environment
- ~ Why python

=> Python Basic :

- ~ Introduction of python and comparison with other programming language Preview
- ~ Installation of anaconda distribution and other python ide
- ~ Python objects, number & Booleans, strings
- ~ Container objects, mutability of objects
- ~ Operators - arithmetic, bitwise, comparison and assignment operators, operators precedence and associativity
- ~ Conditions (if else, if-elif-else), loops (while, for)
- ~ Break and continue statement and range function

=> String Objects :

- ~ basic data structure in python
- ~ String object basics
- ~ String inbuilt methods
- ~ Splitting and joining strings
- ~ String format functions

=> List Object Basics :

- ~ List methods
- ~ List as stack and queues
- ~ List comprehensions

=> Tuples, Sets, Dictionaries & its Function :

- ~ Dictionary object methods
- ~ Dictionary comprehensions
- ~ Dictionary view objects
- ~ Functions basics, parameter passing, iterators
- ~ Generator functions
- ~ Lambda functions
- ~ Map, reduce, filter functions

=> Memory Management :

- ~ Multithreading
- ~ Multiprocessing

=> OOPs Concepts :

- ~ oops basic concepts.
- ~ Creating classes
- ~ Pillars of oops
- ~ Inheritance
- ~ Polymorphism
- ~ Encapsulation
- ~ Abstraction
- ~ Decorator
- ~ Class methods and static methods
- ~ Special (magic/dunder) methods
- ~ Property decorators - getters, setters, and deletes

=> Files :

- ~ Working with files
- ~ Reading and writing files
- ~ Buffered read and write
- ~ Other file methods
- ~ Logging, debugger
- ~ Modules and import statements

=> Exception Handling and Difference between Exception and Error :

- ~ Exceptions handling with try-except
- ~ Custom exception handling
- ~ List of general use exception
- ~ Best practice exception handling

=> GUI Framework :

- ~ What is desktop and standalone application
- ~ Use of desktop app
- ~ Examples of desktop app
- ~ Tinker
- ~ Kivy

=> Database :

- ~ SQLite
- ~ MySQL
- ~ Mongo dB
- ~ NoSQL - Cassandra

=> Web API :

- ~ What is web API
- ~ Difference b/w API and web API
- ~ Rest and soap architecture

~ Restful services

=> Flask :

- ~ Flask introduction
- ~ Flask application
- ~ Open link flask
- ~ App routing flask
- ~ Url building flask
- ~ Http methods flask
- ~ Templates flask
- ~ Flask project: food app
- ~ Postman
- ~ Swagger

=> Django :

- ~ Django introduction
- ~ Django project: weather app
- ~ Django project: memes generator
- ~ Django project: blog app
- ~ Django project in cloud

=> Stream Lit :

- ~ Stream lit introduction
- ~ Stream lit project structure
- ~ Stream lit project in cloud

=> Pandas Basic :

- ~ Python pandas - series
- ~ Python pandas data frame
- ~ Python pandas panel
- ~ Python pandas - basic functionality
- ~ Reading data from different file system

=> Pandas Advance :

- ~ Python pandas re indexing python
- ~ Pandas iteration
- ~ Python pandas sorting.
- ~ Working with text data options & customization
- ~ Indexing & selecting
- ~ Data statistical functions
- ~ Python pandas - window functions
- ~ Python pandas - date functionality
- ~ Python pandas time delta
- ~ Python pandas - categorical data
- ~ Python pandas visualization
- ~ Python pandas - iotools

=> Dask :

- ~ Dask Array
- ~ Dask Bag
- ~ Dask DataFrame
- ~ Dask Delayed
- ~ Dask Futures
- ~ Dask API
- ~ Dask SCHEDULING
- ~ Dask Understanding Performance
- ~ Dask Visualize task graphs
- ~ Dask Diagnostics (local)
- ~ Dask Diagnostics (distributed)
- ~ Dask Debugging
- ~ Dask Ordering

=> Python Numpy :

- ~ Numpy - ND array object.
- ~ Numpy - data types.
- ~ Numpy - array attributes.
- ~ Numpy - array creation routines.
- ~ Numpy - array from existing.
- ~ Data array from numerical ranges.
- ~ Numpy - indexing & slicing.
- ~ Numpy advanced indexing.
- ~ Numpy broadcasting.
- ~ Numpy - iterating over array.
- ~ Numpy - array manipulation.
- ~ Numpy - binary operators.
- ~ Numpy - string functions.
- ~ Numpy - mathematical functions.
- ~ Numpy - arithmetic operations.
- ~ Numpy - statistical functions.
- ~ Sort, search & counting functions.
- ~ Numpy - byte swapping.
- ~ Numpy - copies & views.
- ~ Numpy - matrix library.
- ~ Numpy - linear algebra

=> Visualization :

- ~ Matplotlib
- ~ Seaborn
- ~ Cufflinks
- ~ Plotly
- ~ Bokeh

=> Statistics Basic :

- ~ *Introduction to basic statistics terms*
- ~ *Types of statistics*
- ~ *Types of data*
- ~ *Levels of measurement*
- ~ *Measures of central tendency*
- ~ *Measures of dispersion*
- ~ *Random variables*
- ~ *Set*
- ~ *Skewness*
- ~ *Covariance and correlation*

=> Probability Distribution Function :

- ~ *Probability density/distribution function*
- ~ *Types of the probability distribution*
- ~ *Binomial distribution*
- ~ *Poisson distribution*
- ~ *Normal distribution (Gaussian distribution)*
- ~ *Probability density function and mass function*
- ~ *Cumulative density function*
- ~ *Examples of normal distribution*
- ~ *Bernoulli distribution*
- ~ *Uniform distribution*
- ~ *Z stats*
- ~ *Central limit theorem*
- ~ *Estimation*

=> Statistics Advance :

- ~ *a Hypothesis*
- ~ *Hypothesis testings mechanism*
- ~ *P-value*
- ~ *T-stats*
- ~ *Student t distribution*
- ~ *T-stats vs. Z-stats: overview*
- ~ *When to use a t-tests vs. Z-tests*
- ~ *Type 1 & type 2 error*
- ~ *Bayes statistics (Bayes theorem)*
- ~ *Confidence interval(ci)*
- ~ *Confidence intervals and the margin of error*
- ~ *Interpreting confidence levels and confidence intervals*
- ~ *Chi-square test*
- ~ *Chi-square distribution using python*
- ~ *Chi-square for goodness of fit test*
- ~ *When to use which statistical distribution?*
- ~ *Analysis of variance (anova)*
- ~ *Assumptions to use anova*
- ~ *Anova three type*
- ~ *Partitioning of variance in the anova*
- ~ *Calculating using python*
- ~ *F-distribution*
- ~ *F-test (variance ratio test)*
- ~ *Determining the values of f*
- ~ *F distribution using python*

=> Linear Algebra :

- ~ *linear algebra*
- ~ *Vector*
- ~ *Scaler*
- ~ *Matrix*
- ~ *Matrix operations and manipulations*
- ~ *Dot product of two vectors*
- ~ *Transpose of a matrix*
- ~ *Linear independence of vectors*
- ~ *Rank of a matrix*
- ~ *Identity matrix or operator*
- ~ *Determinant of a matrix*
- ~ *Inverse of a matrix*
- ~ *Norm of a vector*
- ~ *Eigenvalues and eigenvectors*
- ~ *Calculus*

=> Solving Stats Problem with Python

=> Stats Problem Implementation with Spicy

=> Introduction to Machine Learning :

- ~ *AI vs ml vs dl vs ds*
- ~ *Supervised, unsupervised, semi-supervised, reinforcement learning*
- ~ *Train, test, validation split*
- ~ *Performance*
- ~ *Overfitting, under fitting*
- ~ *Bias vs variance*

=> Feature Engineering :

- ~ *Handling missing data*
- ~ *Handling imbalanced data*
- ~ *Up-sampling*
- ~ *Down-sampling*
- ~ *Smote*
- ~ *Data interpolation*

- ~ Handling outliers
- ~ Filter method
- ~ Wrapper method
- ~ Embedded methods
- ~ Feature scaling
- ~ Standardization
- ~ Mean normalization
- ~ Min-max scaling
- ~ Unit vector
- ~ Feature extraction
- ~ Pca (principle component analysis)
- ~ Data encoding
- ~ Nominal encoding
- ~ One hot encoding
- ~ One hot encoding with multiple categories
- ~ Mean encoding
- ~ Ordinal encoding
- ~ Label encoding
- ~ Target guided ordinal encoding
- ~ Covariance
- ~ Correlation check
- ~ Pearson correlation coefficient
- ~ Spearmans rank correlation
- ~ Vif

=> Feature Selection :

- ~ Feature selection
- ~ Recursive feature elimination
- ~ Backward elimination
- ~ Forward elimination

=> Exploratory Data Analysis :

- ~ Feature engineering and selection.
- ~ Analyzing bike sharing trends.
- ~ Analyzing movie reviews sentiment.
- ~ Customer segmentation and effective cross selling.
- ~ Analyzing wine types and quality.
- ~ Analyzing music trends and recommendations.
- ~ Forecasting stock and commodity prices

=> Regression :

- ~ Linear regression
- ~ Gradient descent
- ~ Multiple linear regression
- ~ Polynomial regression
- ~ R square and adjusted r square
- ~ Rmse , mse, mae comparison
- ~ Regularized linear models
- ~ Ridge regression
- ~ Lasso regression
- ~ Elastic net
- ~ Complete end-to-end project with deployment on cloud and ui

=> Logistics Regression :

- ~ Logistics regression in-depth intuition
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Hyper parameter tuning
- ~ Grid search cv
- ~ Randomize search cv
- ~ Data leakage
- ~ Confusion matrix
- ~ Precision, recall, f1 score , roc, auc
- ~ Best metric selection
- ~ Multiclass classification in lr
- ~ Complete end-to-end project with deployment in multi cloud platform

=> Decision Tree :

- ~ Decision tree classifier
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Confusion matrix
- ~ Precision, recall, f1 score , roc, auc
- ~ Best metric selection
- ~ Decision tree repressor
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Performance metrics
- ~ Complete end-to-end project with deployment in multi cloud platform

=> Support Vector Machines :

- ~ Linear svm classification
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Soft margin classification
- ~ Nonlinear svm classification
- ~ Polynomial kernel
- ~ Gaussian, rbf kernel
- ~ Data leakage
- ~ Confusion matrix

- ~ *precision, recall, f1 score, roc, auc*
- ~ *Best metric selection*
- ~ *Svm regression*
- ~ *In-depth mathematical intuition*
- ~ *In-depth geometrical intuition*
- ~ *Complete end-to-end project with deployment*

=> Naive Bayes :

- ~ *Bayes theorem*
- ~ *Multinomial naive Bayes*
- ~ *Gaussian naive Bayes*
- ~ *Various type of Bayes theorem and its intuition*
- ~ *Confusion matrix*
- ~ *precision, recall, f1 score, roc, auc*
- ~ *Best metric selection*
- ~ *Complete end-to-end project with deployment*

=> Ensemble Technique and its Types :

- ~ *Definition of ensemble techniques*
- ~ *Bagging technique*
- ~ *Bootstrap aggregation*
- ~ *Random forest (bagging technique)*
- ~ *Random forest regressor*
- ~ *Random forest classifier*
- ~ *Complete end-to-end project with deployment*

=> Boosting :

- ~ *Boosting technique*
- ~ *Ada boost*
- ~ *Gradient boost*
- ~ *Xgboost*
- ~ *Complete end-to-end project with deployment*

=> Stacking :

- ~ *Stacking technique*
- ~ *Complete end-to-end project with deployment*

=> KNN :

- ~ *Knn classifier*
- ~ *Knn regressor*
- ~ *Variants of knn*
- ~ *Brute force knn*
- ~ *K-dimension tree*
- ~ *Ball tree*
- ~ *Complete end-to-end project with deployment*

=> Dimensionality Reduction :

- ~ *The curse of dimensionality*
- ~ *Dimensionality reduction technique*
- ~ *Pca (principle component analysis)*
- ~ *Mathematics behind pca*
- ~ *Scree plots*
- ~ *Eigen-decomposition approach*

=> Clustering :

- ~ *Clustering and their types*
- ~ *K-means clustering*
- ~ *K-means++*
- ~ *Batch k-means*
- ~ *Hierarchical clustering*
- ~ *DbSCAN*
- ~ *Evaluation of clustering*
- ~ *Homogeneity, completeness and v-measure*
- ~ *Silhouette coefficient*
- ~ *Davies-bouldin index*
- ~ *Contingency matrix*
- ~ *Pair confusion matrix*
- ~ *Extrinsic measure*
- ~ *Intrinsic measure*
- ~ *Complete end-to-end project with deployment*

=> Anomaly Detection :

- ~ *Anomaly detection types*
- ~ *Anomaly detection applications*
- ~ *Isolation forest anomaly detection algorithm*
- ~ *Isolation forest anomaly detection algorithm*
- ~ *Support vector machine anomaly detection algorithm*
- ~ *DbSCAN algorithm for anomaly detection*
- ~ *Complete end-to-end project with deployment*

=> Time-Series :

- ~ *What is a time series?*
- ~ *Old techniques*
- ~ *Arima*
- ~ *Acf and pacf*
- ~ *Time-dependent seasonal components.*
- ~ *Autoregressive (ar),*
- ~ *Moving average (ma) and mixed arma- modeler.*
- ~ *The random walk model.*
- ~ *Box-jenkins methodology.*
- ~ *Forecasts with arima and var models.*

- ~ *Dynamic models with time-shifted explanatory variables.*
- ~ *The koyck transformation.*
- ~ *Partial adjustment and adaptive expectation models.*
- ~ *Granger's causality tests.*
- ~ *Stationarity, unit roots and integration*
- ~ *Time series model performance*
- ~ *Various approach to solve time series problem*
- ~ *Complete end-to-end project with deployment*
- ~ *Prediction of nifty stock price and deployment*

=> NLP Basic :

- ~ *Tokenization*
- ~ *Pos tags and chunking*
- ~ *Stop words*
- ~ *Stemming and lemmatization*
- ~ *Named entity recognition (ner)*
- ~ *Word vectorization (word embedding)*
- ~ *Tfidf*
- ~ *Complete end-to-end project with deployment*

=> Machine Learning Pipeline :

- ~ *Aws segmaker*
- ~ *Aure ml studio*
- ~ *ML flow*
- ~ *Kube flow*

=> Model Retraining Approach

=> Auto ML :

- ~ *H2o*
- ~ *Pycaret*
- ~ *Auto sklearn*
- ~ *Auto time series*
- ~ *Auto viml*
- ~ *Auto gluon*
- ~ *Auto viz*
- ~ *Tpot*
- ~ *Auto neuro*

=> Neural Network A Simple perception :

- ~ *Detail mathematical explanation*
- ~ *Neural network overview and its use case.*
- ~ *Various neural network architect overview.*
- ~ *Use case of neural network in nlp and computer vision.*
- ~ *Activation function -all name*
- ~ *Multilayer network.*
- ~ *Loss functions. - all 10*
- ~ *The learning mechanism.*
- ~ *Optimizers. - all 10*
- ~ *Forward and backward propagation.*
- ~ *Weight initialization technique*
- ~ *Vanishing gradient problem*
- ~ *Exploding gradient problem*
- ~ *Visualization of nn*

=> Hardware Setup - GPU :

- ~ *Gpu introduction.*
- ~ *Various type of gpu configuration.*
- ~ *Gpu provider and its pricing.*
- ~ *Paper space gpu setup.*
- ~ *Running model in gpu*

=> Tensor Flow Installation Environment Setup For Deep Learning :

- ~ *Colab pro setup*
- ~ *Tensor flow installation 2.0 .*
- ~ *Tensor flow installation 1.6 with virtual environment.*
- ~ *Tensor flow 2.0 function.*
- ~ *Tensor flow 2.0 neural network creation.*
- ~ *Tensor flow 1.6 functions.*
- ~ *Tensor flow 1.6 neural network and its functions.*
- ~ *Keras introduction.*
- ~ *Keras in-depth with neural network creation.*
- ~ *Mini project in tensorflow.*
- ~ *Tensorspace*
- ~ *Tensorboard integration*
- ~ *Tensorflow playground*
- ~ *Netron*

=> Pytorch :

- ~ *pytorch installation.*
- ~ *Pytorch functional overview.*
- ~ *Pytorch neural network creation.*

=> Mxnet :

- ~ *Mxnet installation*
- ~ *Mxnet in depth function overview*
- ~ *Mxnet model creation and training*

=> Keras Tuner :

- ~ *Keras tuner installation and overview*
- ~ *Finding best parameter from keras tuner*
- ~ *Keras tuner application across various neural network*

=> CNN Overview :

- ~ *Cnn definition*
- ~ *Various cnn based architecture*
- ~ *Explanation end to end cnn network*
- ~ *Cnn explainer*
- ~ *Training cnn*
- ~ *Deployment in azure cloud*
- ~ *Performance tuning of cnn network*

=> Advance Computer Vision - Part 1 :

- ~ *Various cnn architecture with research paper and mathematics*
- ~ *Lenet-5 variants with research paper and practical*
- ~ *Alexnet variants with research paper and practical*
- ~ *Googlenet variants with research paper and practical*
- ~ *Transfer learning*
- ~ *Vggnet variants with research paper and practical*
- ~ *Resnet variants with research paper and practical*
- ~ *Inception net variants with research paper and practical*
- ~ *Darknet variants with research paper and practical*

=> Advance Computer Vision - Part 2 :

- ~ *Object detection in-depth*
- ~ *Transfer learning*
- ~ *Rcnn with research paper and practical*
- ~ *Fast rcnn with research paper and practical*
- ~ *Faster r cnn with research paper and practical*
- ~ *Ssd with research paper and practical*
- ~ *Ssd lite with research paper and practical*

=> Training of Custom Object Detection :

- ~ *Tfod introduction*
- ~ *Environment setup with tfod*
- ~ *Gpu vs tpu vs cpu*
- ~ *Various gpu comparison*

=> Advance Computer Vision - Part 3 :

- ~ *Yolo v1 with research paper and practical*
- ~ *Yolo v2 with research paper and practical*
- ~ *Yolo v3 with research paper and practical*
- ~ *Yolo v4 with research paper and practical*
- ~ *Yolo v5 with research paper and practical*
- ~ *Retina net*
- ~ *Face net*
- ~ *Detectron2 with practical and live testing*

=> Object Segmentation :

- ~ *Semantic segmentation*
- ~ *Panoptic segmentation*
- ~ *Masked rcnn*
- ~ *Practical with detectron*
- ~ *Practical with tfod*

=> Object Tracking :

- ~ *Detail of object tracking*
- ~ *Kalman filtering*
- ~ *Sort*
- ~ *Deep sort*
- ~ *Object tracking live project with live camera testing*

=> OCR :

- ~ *Introduction to ocr*
- ~ *Various framework and api for ocr*
- ~ *Practical implementation of ocr*
- ~ *Live project deployment for bill parsing*

=> Image Captioning :

- ~ *Image captioning overview*
- ~ *Image captioning project with deployment*

=> Tensorflow JS :

- ~ *Tensorflow js overview*
- ~ *Tfjs implementation*

=> Model Conversion :

- ~ *Tfjs*
- ~ *Tflite*
- ~ *Tfrt*
- ~ *Torch to tf model*
- ~ *Mxnet to tf conversion*

=> Advance NLP with Deep Learning :

- ~ *Overview computational linguistic.*
- ~ *History of nlp.*
- ~ *Why nlp*
- ~ *Use of nlp*

=> Text Processing Importing Text :

- ~ *Web scrapping.*
- ~ *Text processing*
- ~ *Understanding regex.*
- ~ *Text normalization*
- ~ *Word count.*

- ~ Frequency distribution.
- ~ Text annotation.
- ~ Use of annotator.
- ~ String tokenization
- ~ Annotator creation.
- ~ Sentence processing.
- ~ Lemmatization in text processing
- ~ Pos
- ~ Named entity recognition
- ~ Dependency parsing in text.
- ~ Sentimental analysis

=> Spacy :

- ~ Spacy overview.
- ~ Spacy function
- ~ Spacy function implementation in text processing.
- ~ Pos tagging, challenges and accuracy.
- ~ Entities and named entry recognition
- ~ Interpolation, language models
- ~ Nltk
- ~ Text blob
- ~ Stanford nlp

=> RNN :

- ~ Recurrent neural networks.
- ~ Long short term memory (lstm)
- ~ Bi lstm.
- ~ Stacked lstm
- ~ Gru implementation.
- ~ Building a story writer using character level rnn.

=> Word Embedding :

- ~ Word embedding
- ~ Co-occurrence vectors
- ~ Word2vec
- ~ Doc2vec

=> Attention Based Model :

- ~ Seq 2 seq.
- ~ Encoders and decoders.
- ~ Attention mechanism.
- ~ Attention neural networks
- ~ Self-attention

=> Transfer Learning in NLP :

- ~ Introduction to transformers.
- ~ Bert model.
- ~ Elmo model.
- ~ Gpt1 model
- ~ Gpt2 model.
- ~ Albert model.
- ~ Distilbert model

=> Deployment of Model and Performance Tuning :

- ~ Deep learning model deployment strategies.
- ~ Deep learning project architecture
- ~ Deep learning model deployment phase.
- ~ Deep learning model retraining phase.
- ~ Deep learning model deployment in aws.
- ~ Deep learning model deployment in azure.
- ~ Deep learning model deployment in gcloud.

=> API for Speech and Vision :

- ~ AWS
- ~ Azure
- ~ GCP

=> Big Data Introduction :

- ~ What is big data?
- ~ Big data application
- ~ Big data pipeline

=> Hadoop :

- ~ Hadoop introduction
- ~ Hadoop setup and installation

=> Spark :

- ~ Spark
- ~ Spark overview.
- ~ Spark installation.
- ~ Spark rdd.
- ~ Spark data frame.
- ~ Spark architecture.
- ~ Spark ml lib
- ~ Spark NLP
- ~ Spark linear regression
- ~ Spark logistic regression
- ~ Spark decision tree
- ~ Spark naive bayes
- ~ Spark xg boost.
- ~ Spark time series
- ~ Spark deployment in local server

- ~ Spark job automation with
- ~ Scheduler

=> Kafka :

- ~ Kafka introduction
- ~ Kafka installation
- ~ Spark streaming
- ~ Spark with Kafka

=> ML Ops :

- ~ Jenkins
- ~ Kubernetes
- ~ Elasticsearch
- ~ Kibana
- ~ Git

=> SQL :

- ~ Introduction
- ~ ER Daigram
- ~ Schema Design
- ~ Normalization
- ~ SQL SELECT Statement
- ~ SQL SELECT Using common functions
- ~ SQL JOIN Overview
- ~ INNER JOIN
- ~ LEFT JOIN
- ~ RIGHT JOIN
- ~ FULL JOIN
- ~ SQL Best Practice
- ~ INNER JOIN - Advanced
- ~ INNER JOIN & LEFT JOIN Combo
- ~ SELF JOIN
- ~ Joins & Aggregation - Subqueries
- ~ Sorting
- ~ Independent Subqueries
- ~ Correlated Subqueries
- ~ Analytic Function
- ~ Set Operations
- ~ SQL Views
- ~ Create a view
- ~ Create a view using DDL
- ~ SQL Insert - Advanced Technique
- ~ INSERT to create a table
- ~ INSERT new data to an existing table-1
- ~ INSERT new data to an existing table-2
- ~ INSERT new data to an existing table-3
- ~ INSERT new data to an existing table-4
- ~ SQL Update - Advanced Technique and TCL
- ~ SQL DELETE and TCL
- ~ SQL Constraints
- ~ SQL Aggregations
- ~ SQL Programmability
- ~ SQL Query Performance
- ~ SQL Xtras

=> Advance Excel :

- ~ Microsoft Excel Fundamentals
- ~ Entering and Editing Text and Formulas
- ~ Working with Basic Excel Functions
- ~ Modifying an Excel Worksheet
- ~ Formatting Data in an Excel Worksheet
- ~ Inserting Images and Shapes into an Excel Worksheet
- ~ Creating Basic Charts in Excel
- ~ Printing an Excel Worksheet
- ~ Working with Excel Templates
- ~ Working with an Excel List
- ~ Excel List Functions
- ~ Excel Data Validation
- ~ Importing and Exporting Data
- ~ Excel PivotTables
- ~ Working with Excel's PowerPivot Tools
- ~ Working with Large Sets of Excel Data
- ~ Conditional Functions
- ~ Lookup Functions
- ~ Text Based Functions
- ~ Auditing an Excel Worksheet
- ~ Protecting Excel Worksheets and Workbooks
- ~ Mastering Excel "What If?"Tools
- ~ Automating Repetitive Tasks in Excel with Macros
- ~ Macro Recorder Tool
- ~ Excel VBA Concepts
- ~ Advance VBA
- ~ Preparing and Cleaning Up Data with VBA
- ~ VBA to Automate Excel Formulas
- ~ Preparing Weekly Report
- ~ Working with Excel VBA User Forms
- ~ Importing Data from Text Files

=> Tableau :

- ~ Talking about Business Intelligence

- ~ Tools and Methodologies used in BI
- ~ Why Visualization is getting more popular
- ~ Why Tableau?
- ~ Gartner Magic Quadrant of Market Leaders
- ~ Future business impact of BI
- ~ Tableau Products
- ~ Tableau Architecture
- ~ BI Project Execution
- ~ Tableau Installation in local system
- ~ Introduction to Tableau Prep
- ~ Tableau Prep Builder User Interface
- ~ Data Preparation techniques using Tableau Prep Builder tool
- ~ How to connect Tableau with different data source
- ~ Visual Segments
- ~ Visual Analytics in depth
- ~ Filters, Parameters & Sets
- ~ Tableau Calculations using functions
- ~ Tableau Joins
- ~ Working with multiple data source (Data Blending)
- ~ Building Predictive Models
- ~ Dynamic Dashboards and Stories
- ~ Sharing your Reports
- ~ Tableau Server
- ~ User Security
- ~ Scheduling
- ~ PDF File
- ~ JSON File
- ~ Spatial File
- ~ Statistical File
- ~ Microsoft SQL Server
- ~ Salesforce
- ~ AWS
- ~ Azure
- ~ Google Analytics
- ~ R
- ~ Python
- ~ Hadoop
- ~ OneDrive
- ~ Microsoft Access
- ~ SAP HANA
- ~ SharePoint
- ~ Snowflake
- ~ Subject
- ~ Planning
- ~ Pen & Paper approach
- ~ Tools
- ~ Color theme
- ~ Shapes
- ~ Fonts
- ~ Image Selection
- ~ text position
- ~ visual placing
- ~ Story layout & design
- ~ Dashboard planning

=> Power BI :

- ~ Power BI introduction and overview
- ~ Key Benefits of Power BI
- ~ Power BI Architecture
- ~ Power BI Process
- ~ Components of Power BI
- ~ Power BI - Building Blocks
- ~ Power BI vs other BI tools
- ~ Power Installation
- ~ Overview of Power BI Desktop
- ~ Data Sources in Power BI Desktop
- ~ Connecting to a data Sources
- ~ Query Editor in Power BI
- ~ Views in Power BI
- ~ Field Pane
- ~ Visual Pane
- ~ Custom Visual Option
- ~ Filters
- ~ Introduction to using Excel data in Power BI
- ~ Exploring live connections to data with Power BI
- ~ Connecting directly to SQL Azure, HD Spark, SQL Server Analysis Services/ My SQL
- ~ Import Power View and Power Pivot to Power BI
- ~ Power BI Publisher for Excel
- ~ Content packs
- ~ Introducing Power BI Mobile
- ~ Power Query Introduction
- ~ Query Editor Interface
- ~ Clean and Transform your data with Query Editor
- ~ Data Type
- ~ Column Transformations vs Adding Columns
- ~ Text Transformations
- ~ Cleaning irregularly formatted data -Transpose
- ~ Date and Time Calculations
- ~ Advance editor: Use Case

- ~ Query Level Parameters
- ~ Combining Data Merging and Appending
- ~ Data Modelling
- ~ Calculated Columns
- ~ Measures/New Quick Measures
- ~ Calculated Tables
- ~ Optimizing Data Models
- ~ Row Context vs Set Context
- ~ Cross Filter Direction
- ~ Manage Data Relationship
- ~ Why is DAX important?
- ~ Advanced calculations using Calculate functions
- ~ DAX queries
- ~ DAX Parameter Naming
- ~ Time Intelligence Functions
- ~ Types of visualization in a Power BI report
- ~ Custom visualization to a Power BI report
- ~ Matrixes and tables
- ~ Getting started with color formatting and axis properties
- ~ Change how a chart is sorted in a Power BI report
- ~ Move, resize, and pop out a visualization in a Power BI report
- ~ Drill down in a visualization in Power BI

=> GPT-3

=> GAN

=> Reinforcement Learning

Project details :-

=> Python Project :

- ~ Weeding script
- ~ Image resizing
- ~ Jupyter notebook merging, reading etc.
- ~ Sending emails
- ~ Weather app
- ~ Memes generator
- ~ Food log app
- ~ Web scrapping
- ~ Web crawlers for image data sentiment analysis and product review sentiment analysis.
- ~ Integration with web portal.
- ~ Integration with rest api, web portal and mongo db. on azure
- ~ Deployment on web portal on azure.
- ~ Text mining
- ~ Social media data churn
- ~ Mass copy, paste

=> Chatbot Projects :

- ~ Chatbot using Microsoft Luis
- ~ Chatbot using google dialog flow
- ~ Chatbot using amazon lex
- ~ Chatbot using rasa nlu
- ~ Deployment of Chabot with web , telegram , WhatsApp, skype

=> Major Projects :

- ~ Healthcare analytics prediction of medicines based on Fitbit band.
- ~ Revenue forecasting for startups.
- ~ Prediction of order cancellation at the time of ordering inventories.
- ~ anomaly detection in inventory packaged material.
- ~ Fault detection in wafers based on sensor data.
- ~ Demand forecasting for fmcg product.
- ~ Threat identification in security system.
- ~ Defect detection in vehicle engine.
- ~ Food price forecasting with zomato dataset.
- ~ Fault detection in wafers based on sensor data.
- ~ Cement strength reg.
- ~ Credit card fraud.
- ~ Forest cover classification.
- ~ Fraud detection.
- ~ Income prediction.
- ~ Mushroom classifier.
- ~ phishing classifier
- ~ Thyroid detection.
- ~ Visibility climate

=> Computer Vision Project :

- ~ Traffic surveillance system.
- ~ Object identification.
- ~ Object tracking.
- ~ Object classification.
- ~ Tensorflow object detection.
- ~ Image to text processing.
- ~ Speech to speech analysis.
- ~ Vision based attendance system

=> Mini NLP Project :

- ~ Machine translation.
- ~ Abstractive text summarization.
- ~ Keyword spotting.
- ~ Language modelling.

~ Document summarization

=> NLP Transfer Learning Project :

- ~ Deployment and integration with UI machine translation.
- ~ Question answering (like chat bot)
- ~ Sentiment analysis imdb.
- ~ Text search (with synonyms).
- ~ Text classifications.
- ~ Spelling corrector.
- ~ Entity (person, place or brand) recognition.
- ~ Text summarization.
- ~ Text similarity (paraphrase).
- ~ Topic detection.
- ~ Language identification.
- ~ Document ranking.
- ~ Fake news detection
- ~ Plagiarism checker
- ~ Text summarization extractive
- ~ Text summarization abstractive.

=> NLP End to End Project with Architecture and Deployment :

- ~ Movie review using bert
- ~ NER using Bert
- ~ Pos bert
- ~ Text generation gpt 2
- ~ Text summarization xlnet
- ~ Abstract bert
- ~ Machine translation
- ~ Nlp text summarization custom
- ~ Keras/tensorflow
- ~ Language identification
- ~ Text classification using fast bert
- ~ Neuralcore
- ~ Detecting fake text using gltr with bert and gpt2
- ~ Fake news detector using gpt2
- ~ Python plagiarism checker type a message
- ~ Question answering

=> NLP Project End to End with Deployment in Various Cloud and UI Integration :

- ~ Topic modeling.
- ~ Word sense disambiguation
- ~ Text to speech
- ~ Keyword spotting
- ~ Document ranking
- ~ Text search (with synonyms)
- ~ Language modeling
- ~ Spam detector
- ~ Image captioning

=> SQL Project :

- ~ Ecommerce Analysis - Tableau Integration
- ~ Sales Data Analysis - Tableau Integration

=> Tableau Project :

- ~ Human Resource - Tableau
- ~ Supply Chain - Tableau
- ~ Sale Return - Tableau
- ~ E-Commerce Customer Analysis
- ~ Project Management Dashbaord
- ~ Sales Dashboard

=> Power BI Project :

- ~ Cost Insights - Power BI
- ~ Management Insights- Power BI
- ~ Retail Insights- Power BI

Data Science Masters

Topic Name : DATA SCIENCE

Sub-topic Name : FULL STACK DATA SCIENCE

Course link : <https://ineuron.ai/course/Data-Science-Masters>

Course Description :-

This is a data science masters course where you will learn all the stack required to work in data science, data analytics and big data industry including ML ops and cloud infrastructure .

Course Features :-

- => Full stack Data Science masters certification
- => 56 + hands-on industry real-time projects.
- => 500 hours of recorded classes.
- => Lifetime Dashboard access
- => Assignment in all the module
- => Quiz in every module
- => A live project with real-time implementation

What you will learn :-

- => Python
- => Stats
- => Machine learning
- => Deep learning
- => Computer vision
- => Natural language processing
- => Data analytics
- => Big data
- => ML ops
- => Cloud
- => Data structure and algorithm
- => Architecture
- => Domain wise project
- => Databases
- => Negotiations skills
- => Mock interview
- => Interview preparation
- => Resume building after every module

Requirements :-

- => Dedication
- => Computer with i3 and above configuration

Instructors :-

=> Sunny Bhaveen Chandra :

~ Sr. Data Scientist and lecturer at iNeuron.ai with working experience in computer vision, natural language processing and embedded systems. Hands-on experience leveraging machine learning, deep learning, transfer learning models to solve challenging business problems. Also, he has a vast interest in Robotics.

=> Sourangshu Pal :

~ Visual Computing Engineer and instructor at iNeuron.ai having 3 years of diverse experience in the discipline of visual computing with specialization in Deep Learning and Computer Graphics. Loves to analyze, process, and model visual data then interpret the insights to create actionable plans for solving challenging business problems.

=> Khushali Shah :

~ A data scientist having rich experience working with MNCs and start-ups in the field of data science and machine learning. She has expertise in Chatbot development for various domains & been developing professionally for 6+ years with diverse job history. She also had positions in software module development, web app development, functional designs, requirement gathering, client interaction, and server setup/admin & can help everywhere in the stack; she loves wearing multiple hats to an extent. She also believes in enhancing her skills by training and learning new things day by day.

=> krish naik :

~ Having 10+ years of experience in Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

=> Sudhanshu Kumar :

~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

=> Course Introduction :

- ~ course overview and dashboard description
- ~ Introduction of data science and its application in day to day life
- ~ Programming language overview
- ~ Installation (tools: sublime, vscode, pycharm, anaconda, atom, jupyter notebook, kite)
- ~ Virtual environment
- ~ Why python

=> Python Basic :

- ~ Introduction of python and comparison with other programming language Preview
- ~ Installation of anaconda distribution and other python ide
- ~ Python objects, number & Booleans, strings
- ~ Container objects, mutability of objects
- ~ Operators - arithmetic, bitwise, comparison and assignment operators, operators precedence and associativity
- ~ Conditions (if else, if-elif-else), loops (while, for)
- ~ Break and continue statement and range function

=> String Objects :

- ~ basic data structure in python
- ~ String object basics
- ~ String inbuilt methods
- ~ Splitting and joining strings
- ~ String format functions

=> List Object Basics :

- ~ List methods
- ~ List as stack and queues
- ~ List comprehensions

=> Tuples, Sets, Dictionaries & its Function :

- ~ Dictionary object methods
- ~ Dictionary comprehensions
- ~ Dictionary view objects
- ~ Functions basics, parameter passing, iterators
- ~ Generator functions
- ~ Lambda functions
- ~ Map, reduce, filter functions

=> Memory Management :

- ~ Multithreading
- ~ Multiprocessing

=> OOPs Concepts :

- ~ oops basic concepts.
- ~ Creating classes
- ~ Pillars of oops
- ~ Inheritance
- ~ Polymorphism
- ~ Encapsulation
- ~ Abstraction
- ~ Decorator
- ~ Class methods and static methods
- ~ Special (magic/dunder) methods
- ~ Property decorators - getters, setters, and deletes

=> Files :

- ~ Working with files
- ~ Reading and writing files
- ~ Buffered read and write
- ~ Other file methods
- ~ Logging, debugger
- ~ Modules and import statements

=> Exception Handling and Difference between Exception and Error :

- ~ Exceptions handling with try-except
- ~ Custom exception handling
- ~ List of general use exception
- ~ Best practice exception handling

=> GUI Framework :

- ~ What is desktop and standalone application
- ~ Use of desktop app
- ~ Examples of desktop app
- ~ Tinker
- ~ Kivy

=> Database :

- ~ SQLite
- ~ MySQL
- ~ Mongo dB
- ~ NoSQL - Cassandra

=> Web API :

- ~ What is web API
- ~ Difference b/w API and web API
- ~ Rest and soap architecture

~ Restful services

=> Flask :

- ~ Flask introduction
- ~ Flask application
- ~ Open link flask
- ~ App routing flask
- ~ Url building flask
- ~ Http methods flask
- ~ Templates flask
- ~ Flask project: food app
- ~ Postman
- ~ Swagger

=> Django :

- ~ Django introduction
- ~ Django project: weather app
- ~ Django project: memes generator
- ~ Django project: blog app
- ~ Django project in cloud

=> Stream Lit :

- ~ Stream lit introduction
- ~ Stream lit project structure
- ~ Stream lit project in cloud

=> Pandas Basic :

- ~ Python pandas - series
- ~ Python pandas data frame
- ~ Python pandas panel
- ~ Python pandas - basic functionality
- ~ Reading data from different file system

=> Pandas Advance :

- ~ Python pandas re indexing python
- ~ Pandas iteration
- ~ Python pandas sorting.
- ~ Working with text data options & customization
- ~ Indexing & selecting
- ~ Data statistical functions
- ~ Python pandas - window functions
- ~ Python pandas - date functionality
- ~ Python pandas time delta
- ~ Python pandas - categorical data
- ~ Python pandas visualization
- ~ Python pandas - iotools

=> Dask :

- ~ Dask Array
- ~ Dask Bag
- ~ Dask DataFrame
- ~ Dask Delayed
- ~ Dask Futures
- ~ Dask API
- ~ Dask SCHEDULING
- ~ Dask Understanding Performance
- ~ Dask Visualize task graphs
- ~ Dask Diagnostics (local)
- ~ Dask Diagnostics (distributed)
- ~ Dask Debugging
- ~ Dask Ordering

=> Python Numpy :

- ~ Numpy - ND array object.
- ~ Numpy - data types.
- ~ Numpy - array attributes.
- ~ Numpy - array creation routines.
- ~ Numpy - array from existing.
- ~ Data array from numerical ranges.
- ~ Numpy - indexing & slicing.
- ~ Numpy advanced indexing.
- ~ Numpy broadcasting.
- ~ Numpy - iterating over array.
- ~ Numpy - array manipulation.
- ~ Numpy - binary operators.
- ~ Numpy - string functions.
- ~ Numpy - mathematical functions.
- ~ Numpy - arithmetic operations.
- ~ Numpy - statistical functions.
- ~ Sort, search & counting functions.
- ~ Numpy - byte swapping.
- ~ Numpy - copies & views.
- ~ Numpy - matrix library.
- ~ Numpy - linear algebra

=> Visualization :

- ~ Matplotlib
- ~ Seaborn
- ~ Cufflinks
- ~ Plotly
- ~ Bokeh

=> Statistics Basic :

- ~ *Introduction to basic statistics terms*
- ~ *Types of statistics*
- ~ *Types of data*
- ~ *Levels of measurement*
- ~ *Measures of central tendency*
- ~ *Measures of dispersion*
- ~ *Random variables*
- ~ *Set*
- ~ *Skewness*
- ~ *Covariance and correlation*

=> Probability Distribution Function :

- ~ *Probability density/distribution function*
- ~ *Types of the probability distribution*
- ~ *Binomial distribution*
- ~ *Poisson distribution*
- ~ *Normal distribution (Gaussian distribution)*
- ~ *Probability density function and mass function*
- ~ *Cumulative density function*
- ~ *Examples of normal distribution*
- ~ *Bernoulli distribution*
- ~ *Uniform distribution*
- ~ *Z stats*
- ~ *Central limit theorem*
- ~ *Estimation*

=> Statistics Advance :

- ~ *a Hypothesis*
- ~ *Hypothesis testings mechanism*
- ~ *P-value*
- ~ *T-stats*
- ~ *Student t distribution*
- ~ *T-stats vs. Z-stats: overview*
- ~ *When to use a t-tests vs. Z-tests*
- ~ *Type 1 & type 2 error*
- ~ *Bayes statistics (Bayes theorem)*
- ~ *Confidence interval(ci)*
- ~ *Confidence intervals and the margin of error*
- ~ *Interpreting confidence levels and confidence intervals*
- ~ *Chi-square test*
- ~ *Chi-square distribution using python*
- ~ *Chi-square for goodness of fit test*
- ~ *When to use which statistical distribution?*
- ~ *Analysis of variance (anova)*
- ~ *Assumptions to use anova*
- ~ *Anova three type*
- ~ *Partitioning of variance in the anova*
- ~ *Calculating using python*
- ~ *F-distribution*
- ~ *F-test (variance ratio test)*
- ~ *Determining the values of f*
- ~ *F distribution using python*

=> Linear Algebra :

- ~ *linear algebra*
- ~ *Vector*
- ~ *Scaler*
- ~ *Matrix*
- ~ *Matrix operations and manipulations*
- ~ *Dot product of two vectors*
- ~ *Transpose of a matrix*
- ~ *Linear independence of vectors*
- ~ *Rank of a matrix*
- ~ *Identity matrix or operator*
- ~ *Determinant of a matrix*
- ~ *Inverse of a matrix*
- ~ *Norm of a vector*
- ~ *Eigenvalues and eigenvectors*
- ~ *Calculus*

=> Solving Stats Problem with Python

=> Stats Problem Implementation with Spicy

=> Introduction to Machine Learning :

- ~ *AI vs ml vs dl vs ds*
- ~ *Supervised, unsupervised, semi-supervised, reinforcement learning*
- ~ *Train, test, validation split*
- ~ *Performance*
- ~ *Overfitting, under fitting*
- ~ *Bias vs variance*

=> Feature Engineering :

- ~ *Handling missing data*
- ~ *Handling imbalanced data*
- ~ *Up-sampling*
- ~ *Down-sampling*
- ~ *Smote*
- ~ *Data interpolation*

- ~ Handling outliers
- ~ Filter method
- ~ Wrapper method
- ~ Embedded methods
- ~ Feature scaling
- ~ Standardization
- ~ Mean normalization
- ~ Min-max scaling
- ~ Unit vector
- ~ Feature extraction
- ~ Pca (principle component analysis)
- ~ Data encoding
- ~ Nominal encoding
- ~ One hot encoding
- ~ One hot encoding with multiple categories
- ~ Mean encoding
- ~ Ordinal encoding
- ~ Label encoding
- ~ Target guided ordinal encoding
- ~ Covariance
- ~ Correlation check
- ~ Pearson correlation coefficient
- ~ Spearmans rank correlation
- ~ Vif

=> Feature Selection :

- ~ Feature selection
- ~ Recursive feature elimination
- ~ Backward elimination
- ~ Forward elimination

=> Exploratory Data Analysis :

- ~ Feature engineering and selection.
- ~ Analyzing bike sharing trends.
- ~ Analyzing movie reviews sentiment.
- ~ Customer segmentation and effective cross selling.
- ~ Analyzing wine types and quality.
- ~ Analyzing music trends and recommendations.
- ~ Forecasting stock and commodity prices

=> Regression :

- ~ Linear regression
- ~ Gradient descent
- ~ Multiple linear regression
- ~ Polynomial regression
- ~ R square and adjusted r square
- ~ Rmse , mse, mae comparison
- ~ Regularized linear models
- ~ Ridge regression
- ~ Lasso regression
- ~ Elastic net
- ~ Complete end-to-end project with deployment on cloud and ui

=> Logistics Regression :

- ~ Logistics regression in-depth intuition
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Hyper parameter tuning
- ~ Grid search cv
- ~ Randomize search cv
- ~ Data leakage
- ~ Confusion matrix
- ~ Precision, recall, f1 score , roc, auc
- ~ Best metric selection
- ~ Multiclass classification in lr
- ~ Complete end-to-end project with deployment in multi cloud platform

=> Decision Tree :

- ~ Decision tree classifier
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Confusion matrix
- ~ Precision, recall, f1 score , roc, auc
- ~ Best metric selection
- ~ Decision tree repressor
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Performance metrics
- ~ Complete end-to-end project with deployment in multi cloud platform

=> Support Vector Machines :

- ~ Linear svm classification
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Soft margin classification
- ~ Nonlinear svm classification
- ~ Polynomial kernel
- ~ Gaussian, rbf kernel
- ~ Data leakage
- ~ Confusion matrix

- ~ *precision, recall, f1 score, roc, auc*
- ~ *Best metric selection*
- ~ *Svm regression*
- ~ *In-depth mathematical intuition*
- ~ *In-depth geometrical intuition*
- ~ *Complete end-to-end project with deployment*

=> Naive Bayes :

- ~ *Bayes theorem*
- ~ *Multinomial naive Bayes*
- ~ *Gaussian naive Bayes*
- ~ *Various type of Bayes theorem and its intuition*
- ~ *Confusion matrix*
- ~ *precision, recall, f1 score, roc, auc*
- ~ *Best metric selection*
- ~ *Complete end-to-end project with deployment*

=> Ensemble Technique and its Types :

- ~ *Definition of ensemble techniques*
- ~ *Bagging technique*
- ~ *Bootstrap aggregation*
- ~ *Random forest (bagging technique)*
- ~ *Random forest regressor*
- ~ *Random forest classifier*
- ~ *Complete end-to-end project with deployment*

=> Boosting :

- ~ *Boosting technique*
- ~ *Ada boost*
- ~ *Gradient boost*
- ~ *Xgboost*
- ~ *Complete end-to-end project with deployment*

=> Stacking :

- ~ *Stacking technique*
- ~ *Complete end-to-end project with deployment*

=> KNN :

- ~ *Knn classifier*
- ~ *Knn regressor*
- ~ *Variants of knn*
- ~ *Brute force knn*
- ~ *K-dimension tree*
- ~ *Ball tree*
- ~ *Complete end-to-end project with deployment*

=> Dimensionality Reduction :

- ~ *The curse of dimensionality*
- ~ *Dimensionality reduction technique*
- ~ *Pca (principle component analysis)*
- ~ *Mathematics behind pca*
- ~ *Scree plots*
- ~ *Eigen-decomposition approach*

=> Clustering :

- ~ *Clustering and their types*
- ~ *K-means clustering*
- ~ *K-means++*
- ~ *Batch k-means*
- ~ *Hierarchical clustering*
- ~ *DbSCAN*
- ~ *Evaluation of clustering*
- ~ *Homogeneity, completeness and v-measure*
- ~ *Silhouette coefficient*
- ~ *Davies-bouldin index*
- ~ *Contingency matrix*
- ~ *Pair confusion matrix*
- ~ *Extrinsic measure*
- ~ *Intrinsic measure*
- ~ *Complete end-to-end project with deployment*

=> Anomaly Detection :

- ~ *Anomaly detection types*
- ~ *Anomaly detection applications*
- ~ *Isolation forest anomaly detection algorithm*
- ~ *Isolation forest anomaly detection algorithm*
- ~ *Support vector machine anomaly detection algorithm*
- ~ *DbSCAN algorithm for anomaly detection*
- ~ *Complete end-to-end project with deployment*

=> Time-Series :

- ~ *What is a time series?*
- ~ *Old techniques*
- ~ *Arima*
- ~ *Acf and pacf*
- ~ *Time-dependent seasonal components.*
- ~ *Autoregressive (ar),*
- ~ *Moving average (ma) and mixed arma- modeler.*
- ~ *The random walk model.*
- ~ *Box-jenkins methodology.*
- ~ *Forecasts with arima and var models.*

- ~ *Dynamic models with time-shifted explanatory variables.*
- ~ *The koyck transformation.*
- ~ *Partial adjustment and adaptive expectation models.*
- ~ *Granger's causality tests.*
- ~ *Stationarity, unit roots and integration*
- ~ *Time series model performance*
- ~ *Various approach to solve time series problem*
- ~ *Complete end-to-end project with deployment*
- ~ *Prediction of nifty stock price and deployment*

=> NLP Basic :

- ~ *Tokenization*
- ~ *Pos tags and chunking*
- ~ *Stop words*
- ~ *Stemming and lemmatization*
- ~ *Named entity recognition (ner)*
- ~ *Word vectorization (word embedding)*
- ~ *Tfidf*
- ~ *Complete end-to-end project with deployment*

=> Machine Learning Pipeline :

- ~ *Aws segmaker*
- ~ *Aure ml studio*
- ~ *ML flow*
- ~ *Kube flow*

=> Model Retraining Approach

=> Auto ML :

- ~ *H2o*
- ~ *Pycaret*
- ~ *Auto sklearn*
- ~ *Auto time series*
- ~ *Auto viml*
- ~ *Auto gluon*
- ~ *Auto viz*
- ~ *Tpot*
- ~ *Auto neuro*

=> Neural Network A Simple perception :

- ~ *Detail mathematical explanation*
- ~ *Neural network overview and its use case.*
- ~ *Various neural network architect overview.*
- ~ *Use case of neural network in nlp and computer vision.*
- ~ *Activation function -all name*
- ~ *Multilayer network.*
- ~ *Loss functions. - all 10*
- ~ *The learning mechanism.*
- ~ *Optimizers. - all 10*
- ~ *Forward and backward propagation.*
- ~ *Weight initialization technique*
- ~ *Vanishing gradient problem*
- ~ *Exploding gradient problem*
- ~ *Visualization of nn*

=> Hardware Setup - GPU :

- ~ *Gpu introduction.*
- ~ *Various type of gpu configuration.*
- ~ *Gpu provider and its pricing.*
- ~ *Paper space gpu setup.*
- ~ *Running model in gpu*

=> Tensor Flow Installation Environment Setup For Deep Learning :

- ~ *Colab pro setup*
- ~ *Tensor flow installation 2.0 .*
- ~ *Tensor flow installation 1.6 with virtual environment.*
- ~ *Tensor flow 2.0 function.*
- ~ *Tensor flow 2.0 neural network creation.*
- ~ *Tensor flow 1.6 functions.*
- ~ *Tensor flow 1.6 neural network and its functions.*
- ~ *Keras introduction.*
- ~ *Keras in-depth with neural network creation.*
- ~ *Mini project in tensorflow.*
- ~ *Tensorspace*
- ~ *Tensorboard integration*
- ~ *Tensorflow playground*
- ~ *Netron*

=> Pytorch :

- ~ *pytorch installation.*
- ~ *Pytorch functional overview.*
- ~ *Pytorch neural network creation.*

=> Mxnet :

- ~ *Mxnet installation*
- ~ *Mxnet in depth function overview*
- ~ *Mxnet model creation and training*

=> Keras Tuner :

- ~ *Keras tuner installation and overview*
- ~ *Finding best parameter from keras tuner*
- ~ *Keras tuner application across various neural network*

=> CNN Overview :

- ~ *Cnn definition*
- ~ *Various cnn based architecture*
- ~ *Explanation end to end cnn network*
- ~ *Cnn explainer*
- ~ *Training cnn*
- ~ *Deployment in azure cloud*
- ~ *Performance tuning of cnn network*

=> Advance Computer Vision - Part 1 :

- ~ *Various cnn architecture with research paper and mathematics*
- ~ *Lenet-5 variants with research paper and practical*
- ~ *Alexnet variants with research paper and practical*
- ~ *Googlenet variants with research paper and practical*
- ~ *Transfer learning*
- ~ *Vggnet variants with research paper and practical*
- ~ *Resnet variants with research paper and practical*
- ~ *Inception net variants with research paper and practical*
- ~ *Darknet variants with research paper and practical*

=> Advance Computer Vision - Part 2 :

- ~ *Object detection in-depth*
- ~ *Transfer learning*
- ~ *Rcnn with research paper and practical*
- ~ *Fast rcnn with research paper and practical*
- ~ *Faster r cnn with research paper and practical*
- ~ *Ssd with research paper and practical*
- ~ *Ssd lite with research paper and practical*

=> Training of Custom Object Detection :

- ~ *Tfod introduction*
- ~ *Environment setup with tfod*
- ~ *Gpu vs tpu vs cpu*
- ~ *Various gpu comparison*

=> Advance Computer Vision - Part 3 :

- ~ *Yolo v1 with research paper and practical*
- ~ *Yolo v2 with research paper and practical*
- ~ *Yolo v3 with research paper and practical*
- ~ *Yolo v4 with research paper and practical*
- ~ *Yolo v5 with research paper and practical*
- ~ *Retina net*
- ~ *Face net*
- ~ *Detectron2 with practical and live testing*

=> Object Segmentation :

- ~ *Semantic segmentation*
- ~ *Panoptic segmentation*
- ~ *Masked rcnn*
- ~ *Practical with detectron*
- ~ *Practical with tfod*

=> Object Tracking :

- ~ *Detail of object tracking*
- ~ *Kalman filtering*
- ~ *Sort*
- ~ *Deep sort*
- ~ *Object tracking live project with live camera testing*

=> OCR :

- ~ *Introduction to ocr*
- ~ *Various framework and api for ocr*
- ~ *Practical implementation of ocr*
- ~ *Live project deployment for bill parsing*

=> Image Captioning :

- ~ *Image captioning overview*
- ~ *Image captioning project with deployment*

=> Tensorflow JS :

- ~ *Tensorflow js overview*
- ~ *Tfjs implementation*

=> Model Conversion :

- ~ *Tfjs*
- ~ *Tflite*
- ~ *Tfrt*
- ~ *Torch to tf model*
- ~ *Mxnet to tf conversion*

=> Advance NLP with Deep Learning :

- ~ *Overview computational linguistic.*
- ~ *History of nlp.*
- ~ *Why nlp*
- ~ *Use of nlp*

=> Text Processing Importing Text :

- ~ *Web scrapping.*
- ~ *Text processing*
- ~ *Understanding regex.*
- ~ *Text normalization*
- ~ *Word count.*

- ~ Frequency distribution.
- ~ Text annotation.
- ~ Use of annotator.
- ~ String tokenization
- ~ Annotator creation.
- ~ Sentence processing.
- ~ Lemmatization in text processing
- ~ Pos
- ~ Named entity recognition
- ~ Dependency parsing in text.
- ~ Sentimental analysis

=> Spacy :

- ~ Spacy overview.
- ~ Spacy function
- ~ Spacy function implementation in text processing.
- ~ Pos tagging, challenges and accuracy.
- ~ Entities and named entry recognition
- ~ Interpolation, language models
- ~ Nltk
- ~ Text blob
- ~ Stanford nlp

=> RNN :

- ~ Recurrent neural networks.
- ~ Long short term memory (lstm)
- ~ Bi lstm.
- ~ Stacked lstm
- ~ Gru implementation.
- ~ Building a story writer using character level rnn.

=> Word Embedding :

- ~ Word embedding
- ~ Co-occurrence vectors
- ~ Word2vec
- ~ Doc2vec

=> Attention Based Model :

- ~ Seq 2 seq.
- ~ Encoders and decoders.
- ~ Attention mechanism.
- ~ Attention neural networks
- ~ Self-attention

=> Transfer Learning in NLP :

- ~ Introduction to transformers.
- ~ Bert model.
- ~ Elmo model.
- ~ Gpt1 model
- ~ Gpt2 model.
- ~ Albert model.
- ~ Distilbert model

=> Deployment of Model and Performance Tuning :

- ~ Deep learning model deployment strategies.
- ~ Deep learning project architecture
- ~ Deep learning model deployment phase.
- ~ Deep learning model retraining phase.
- ~ Deep learning model deployment in aws.
- ~ Deep learning model deployment in azure.
- ~ Deep learning model deployment in gcloud.

=> API for Speech and Vision :

- ~ AWS
- ~ Azure
- ~ GCP

=> Big Data Introduction :

- ~ What is big data?
- ~ Big data application
- ~ Big data pipeline

=> Hadoop :

- ~ Hadoop introduction
- ~ Hadoop setup and installation

=> Spark :

- ~ Spark
- ~ Spark overview.
- ~ Spark installation.
- ~ Spark rdd.
- ~ Spark data frame.
- ~ Spark architecture.
- ~ Spark ml lib
- ~ Spark NLP
- ~ Spark linear regression
- ~ Spark logistic regression
- ~ Spark decision tree
- ~ Spark naive bayes
- ~ Spark xg boost.
- ~ Spark time series
- ~ Spark deployment in local server

- ~ Spark job automation with
- ~ Scheduler

=> Kafka :

- ~ Kafka introduction
- ~ Kafka installation
- ~ Spark streaming
- ~ Spark with Kafka

=> ML Ops :

- ~ Jenkins
- ~ Kubernetes
- ~ Elasticsearch
- ~ Kibana
- ~ Git

=> SQL :

- ~ Introduction
- ~ ER Daigram
- ~ Schema Design
- ~ Normalization
- ~ SQL SELECT Statement
- ~ SQL SELECT Using common functions
- ~ SQL JOIN Overview
- ~ INNER JOIN
- ~ LEFT JOIN
- ~ RIGHT JOIN
- ~ FULL JOIN
- ~ SQL Best Practice
- ~ INNER JOIN - Advanced
- ~ INNER JOIN & LEFT JOIN Combo
- ~ SELF JOIN
- ~ Joins & Aggregation - Subqueries
- ~ Sorting
- ~ Independent Subqueries
- ~ Correlated Subqueries
- ~ Analytic Function
- ~ Set Operations
- ~ SQL Views
- ~ Create a view
- ~ Create a view using DDL
- ~ SQL Insert - Advanced Technique
- ~ INSERT to create a table
- ~ INSERT new data to an existing table-1
- ~ INSERT new data to an existing table-2
- ~ INSERT new data to an existing table-3
- ~ INSERT new data to an existing table-4
- ~ SQL Update - Advanced Technique and TCL
- ~ SQL DELETE and TCL
- ~ SQL Constraints
- ~ SQL Aggregations
- ~ SQL Programmability
- ~ SQL Query Performance
- ~ SQL Xtras

=> Advance Excel :

- ~ Microsoft Excel Fundamentals
- ~ Entering and Editing Text and Formulas
- ~ Working with Basic Excel Functions
- ~ Modifying an Excel Worksheet
- ~ Formatting Data in an Excel Worksheet
- ~ Inserting Images and Shapes into an Excel Worksheet
- ~ Creating Basic Charts in Excel
- ~ Printing an Excel Worksheet
- ~ Working with Excel Templates
- ~ Working with an Excel List
- ~ Excel List Functions
- ~ Excel Data Validation
- ~ Importing and Exporting Data
- ~ Excel PivotTables
- ~ Working with Excel's PowerPivot Tools
- ~ Working with Large Sets of Excel Data
- ~ Conditional Functions
- ~ Lookup Functions
- ~ Text Based Functions
- ~ Auditing an Excel Worksheet
- ~ Protecting Excel Worksheets and Workbooks
- ~ Mastering Excel "What If?"Tools
- ~ Automating Repetitive Tasks in Excel with Macros
- ~ Macro Recorder Tool
- ~ Excel VBA Concepts
- ~ Advance VBA
- ~ Preparing and Cleaning Up Data with VBA
- ~ VBA to Automate Excel Formulas
- ~ Preparing Weekly Report
- ~ Working with Excel VBA User Forms
- ~ Importing Data from Text Files

=> Tableau :

- ~ Talking about Business Intelligence

- ~ Tools and Methodologies used in BI
- ~ Why Visualization is getting more popular
- ~ Why Tableau?
- ~ Gartner Magic Quadrant of Market Leaders
- ~ Future business impact of BI
- ~ Tableau Products
- ~ Tableau Architecture
- ~ BI Project Execution
- ~ Tableau Installation in local system
- ~ Introduction to Tableau Prep
- ~ Tableau Prep Builder User Interface
- ~ Data Preparation techniques using Tableau Prep Builder tool
- ~ How to connect Tableau with different data source
- ~ Visual Segments
- ~ Visual Analytics in depth
- ~ Filters, Parameters & Sets
- ~ Tableau Calculations using functions
- ~ Tableau Joins
- ~ Working with multiple data source (Data Blending)
- ~ Building Predictive Models
- ~ Dynamic Dashboards and Stories
- ~ Sharing your Reports
- ~ Tableau Server
- ~ User Security
- ~ Scheduling
- ~ PDF File
- ~ JSON File
- ~ Spatial File
- ~ Statistical File
- ~ Microsoft SQL Server
- ~ Salesforce
- ~ AWS
- ~ Azure
- ~ Google Analytics
- ~ R
- ~ Python
- ~ Hadoop
- ~ OneDrive
- ~ Microsoft Access
- ~ SAP HANA
- ~ SharePoint
- ~ Snowflake
- ~ Subject
- ~ Planning
- ~ Pen & Paper approach
- ~ Tools
- ~ Color theme
- ~ Shapes
- ~ Fonts
- ~ Image Selection
- ~ text position
- ~ visual placing
- ~ Story layout & design
- ~ Dashboard planning

=> Power BI :

- ~ Power BI introduction and overview
- ~ Key Benefits of Power BI
- ~ Power BI Architecture
- ~ Power BI Process
- ~ Components of Power BI
- ~ Power BI - Building Blocks
- ~ Power BI vs other BI tools
- ~ Power Installation
- ~ Overview of Power BI Desktop
- ~ Data Sources in Power BI Desktop
- ~ Connecting to a data Sources
- ~ Query Editor in Power BI
- ~ Views in Power BI
- ~ Field Pane
- ~ Visual Pane
- ~ Custom Visual Option
- ~ Filters
- ~ Introduction to using Excel data in Power BI
- ~ Exploring live connections to data with Power BI
- ~ Connecting directly to SQL Azure, HD Spark, SQL Server Analysis Services/ My SQL
- ~ Import Power View and Power Pivot to Power BI
- ~ Power BI Publisher for Excel
- ~ Content packs
- ~ Introducing Power BI Mobile
- ~ Power Query Introduction
- ~ Query Editor Interface
- ~ Clean and Transform your data with Query Editor
- ~ Data Type
- ~ Column Transformations vs Adding Columns
- ~ Text Transformations
- ~ Cleaning irregularly formatted data -Transpose
- ~ Date and Time Calculations
- ~ Advance editor: Use Case

- ~ Query Level Parameters
- ~ Combining Data Merging and Appending
- ~ Data Modelling
- ~ Calculated Columns
- ~ Measures/New Quick Measures
- ~ Calculated Tables
- ~ Optimizing Data Models
- ~ Row Context vs Set Context
- ~ Cross Filter Direction
- ~ Manage Data Relationship
- ~ Why is DAX important?
- ~ Advanced calculations using Calculate functions
- ~ DAX queries
- ~ DAX Parameter Naming
- ~ Time Intelligence Functions
- ~ Types of visualization in a Power BI report
- ~ Custom visualization to a Power BI report
- ~ Matrixes and tables
- ~ Getting started with color formatting and axis properties
- ~ Change how a chart is sorted in a Power BI report
- ~ Move, resize, and pop out a visualization in a Power BI report
- ~ Drill down in a visualization in Power BI

=> GPT-3

=> GAN

=> Reinforcement Learning

Project details :-

=> Python Project :

- ~ Weeding script
- ~ Image resizing
- ~ Jupyter notebook merging, reading etc.
- ~ Sending emails
- ~ Weather app
- ~ Memes generator
- ~ Food log app
- ~ Web scrapping
- ~ Web crawlers for image data sentiment analysis and product review sentiment analysis.
- ~ Integration with web portal.
- ~ Integration with rest api, web portal and mongo db. on azure
- ~ Deployment on web portal on azure.
- ~ Text mining
- ~ Social media data churn
- ~ Mass copy, paste

=> Chatbot Projects :

- ~ Chatbot using Microsoft Luis
- ~ Chatbot using google dialog flow
- ~ Chatbot using amazon lex
- ~ Chatbot using rasa nlu
- ~ Deployment of Chabot with web , telegram , WhatsApp, skype

=> Major Projects :

- ~ Healthcare analytics prediction of medicines based on Fitbit band.
- ~ Revenue forecasting for startups.
- ~ Prediction of order cancellation at the time of ordering inventories.
- ~ anomaly detection in inventory packaged material.
- ~ Fault detection in wafers based on sensor data.
- ~ Demand forecasting for fmcg product.
- ~ Threat identification in security system.
- ~ Defect detection in vehicle engine.
- ~ Food price forecasting with zomato dataset.
- ~ Fault detection in wafers based on sensor data.
- ~ Cement strength reg.
- ~ Credit card fraud.
- ~ Forest cover classification.
- ~ Fraud detection.
- ~ Income prediction.
- ~ Mushroom classifier.
- ~ phishing classifier
- ~ Thyroid detection.
- ~ Visibility climate

=> Computer Vision Project :

- ~ Traffic surveillance system.
- ~ Object identification.
- ~ Object tracking.
- ~ Object classification.
- ~ Tensorflow object detection.
- ~ Image to text processing.
- ~ Speech to speech analysis.
- ~ Vision based attendance system

=> Mini NLP Project :

- ~ Machine translation.
- ~ Abstractive text summarization.
- ~ Keyword spotting.
- ~ Language modelling.

~ Document summarization

=> NLP Transfer Learning Project :

- ~ Deployment and integration with UI machine translation.
- ~ Question answering (like chat bot)
- ~ Sentiment analysis imdb.
- ~ Text search (with synonyms).
- ~ Text classifications.
- ~ Spelling corrector.
- ~ Entity (person, place or brand) recognition.
- ~ Text summarization.
- ~ Text similarity (paraphrase).
- ~ Topic detection.
- ~ Language identification.
- ~ Document ranking.
- ~ Fake news detection
- ~ Plagiarism checker
- ~ Text summarization extractive
- ~ Text summarization abstractive.

=> NLP End to End Project with Architecture and Deployment :

- ~ Movie review using bert
- ~ NER using Bert
- ~ Pos bert
- ~ Text generation gpt 2
- ~ Text summarization xlnet
- ~ Abstract bert
- ~ Machine translation
- ~ Nlp text summarization custom
- ~ Keras/tensorflow
- ~ Language identification
- ~ Text classification using fast bert
- ~ Neuralcore
- ~ Detecting fake text using gltr with bert and gpt2
- ~ Fake news detector using gpt2
- ~ Python plagiarism checker type a message
- ~ Question answering

=> NLP Project End to End with Deployment in Various Cloud and UI Integration :

- ~ Topic modeling.
- ~ Word sense disambiguation
- ~ Text to speech
- ~ Keyword spotting
- ~ Document ranking
- ~ Text search (with synonyms)
- ~ Language modeling
- ~ Spam detector
- ~ Image captioning

=> SQL Project :

- ~ Ecommerce Analysis - Tableau Integration
- ~ Sales Data Analysis - Tableau Integration

=> Tableau Project :

- ~ Human Resource - Tableau
- ~ Supply Chain - Tableau
- ~ Sale Return - Tableau
- ~ E-Commerce Customer Analysis
- ~ Project Management Dashbaord
- ~ Sales Dashboard

=> Power BI Project :

- ~ Cost Insights - Power BI
- ~ Management Insights- Power BI
- ~ Retail Insights- Power BI

Data Science Masters

Topic Name : DATA SCIENCE

Sub-topic Name : FULL STACK DATA SCIENCE

Course link : <https://ineuron.ai/course/Data-Science-Masters>

Course Description :-

This is a data science masters course where you will learn all the stack required to work in data science, data analytics and big data industry including ML ops and cloud infrastructure .

Course Features :-

- => Full stack Data Science masters certification
- => 56 + hands-on industry real-time projects.
- => 500 hours of recorded classes.
- => Lifetime Dashboard access
- => Assignment in all the module
- => Quiz in every module
- => A live project with real-time implementation

What you will learn :-

- => Python
- => Stats
- => Machine learning
- => Deep learning
- => Computer vision
- => Natural language processing
- => Data analytics
- => Big data
- => ML ops
- => Cloud
- => Data structure and algorithm
- => Architecture
- => Domain wise project
- => Databases
- => Negotiations skills
- => Mock interview
- => Interview preparation
- => Resume building after every module

Requirements :-

- => Dedication
- => Computer with i3 and above configuration

Instructors :-

=> Sunny Bhaveen Chandra :

~ Sr. Data Scientist and lecturer at iNeuron.ai with working experience in computer vision, natural language processing and embedded systems. Hands-on experience leveraging machine learning, deep learning, transfer learning models to solve challenging business problems. Also, he has a vast interest in Robotics.

=> Sourangshu Pal :

~ Visual Computing Engineer and instructor at iNeuron.ai having 3 years of diverse experience in the discipline of visual computing with specialization in Deep Learning and Computer Graphics. Loves to analyze, process, and model visual data then interpret the insights to create actionable plans for solving challenging business problems.

=> Khushali Shah :

~ A data scientist having rich experience working with MNCs and start-ups in the field of data science and machine learning. She has expertise in Chatbot development for various domains & been developing professionally for 6+ years with diverse job history. She also had positions in software module development, web app development, functional designs, requirement gathering, client interaction, and server setup/admin & can help everywhere in the stack; she loves wearing multiple hats to an extent. She also believes in enhancing her skills by training and learning new things day by day.

=> krish naik :

~ Having 10+ years of experience in Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

=> Sudhanshu Kumar :

~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

=> Course Introduction :

- ~ course overview and dashboard description
- ~ Introduction of data science and its application in day to day life
- ~ Programming language overview
- ~ Installation (tools: sublime, vscode, pycharm, anaconda, atom, jupyter notebook, kite)
- ~ Virtual environment
- ~ Why python

=> Python Basic :

- ~ Introduction of python and comparison with other programming language Preview
- ~ Installation of anaconda distribution and other python ide
- ~ Python objects, number & Booleans, strings
- ~ Container objects, mutability of objects
- ~ Operators - arithmetic, bitwise, comparison and assignment operators, operators precedence and associativity
- ~ Conditions (if else, if-elif-else), loops (while, for)
- ~ Break and continue statement and range function

=> String Objects :

- ~ basic data structure in python
- ~ String object basics
- ~ String inbuilt methods
- ~ Splitting and joining strings
- ~ String format functions

=> List Object Basics :

- ~ List methods
- ~ List as stack and queues
- ~ List comprehensions

=> Tuples, Sets, Dictionaries & its Function :

- ~ Dictionary object methods
- ~ Dictionary comprehensions
- ~ Dictionary view objects
- ~ Functions basics, parameter passing, iterators
- ~ Generator functions
- ~ Lambda functions
- ~ Map, reduce, filter functions

=> Memory Management :

- ~ Multithreading
- ~ Multiprocessing

=> OOPs Concepts :

- ~ oops basic concepts.
- ~ Creating classes
- ~ Pillars of oops
- ~ Inheritance
- ~ Polymorphism
- ~ Encapsulation
- ~ Abstraction
- ~ Decorator
- ~ Class methods and static methods
- ~ Special (magic/dunder) methods
- ~ Property decorators - getters, setters, and deletes

=> Files :

- ~ Working with files
- ~ Reading and writing files
- ~ Buffered read and write
- ~ Other file methods
- ~ Logging, debugger
- ~ Modules and import statements

=> Exception Handling and Difference between Exception and Error :

- ~ Exceptions handling with try-except
- ~ Custom exception handling
- ~ List of general use exception
- ~ Best practice exception handling

=> GUI Framework :

- ~ What is desktop and standalone application
- ~ Use of desktop app
- ~ Examples of desktop app
- ~ Tinker
- ~ Kivy

=> Database :

- ~ SQLite
- ~ MySQL
- ~ Mongo dB
- ~ NoSQL - Cassandra

=> Web API :

- ~ What is web API
- ~ Difference b/w API and web API
- ~ Rest and soap architecture

~ *Restful services*

=> Flask :

~ *Flask introduction*
~ *Flask application*
~ *Open link flask*
~ *App routing flask*
~ *Url building flask*
~ *Http methods flask*
~ *Templates flask*
~ *Flask project: food app*
~ *Postman*
~ *Swagger*

=> Django :

~ *Django introduction*
~ *Django project: weather app*
~ *Django project: memes generator*
~ *Django project: blog app*
~ *Django project in cloud*

=> Stream Lit :

~ *Stream lit introduction*
~ *Stream lit project structure*
~ *Stream lit project in cloud*

=> Pandas Basic :

~ *Python pandas - series*
~ *Python pandas data frame*
~ *Python pandas panel*
~ *Python pandas - basic functionality*
~ *Reading data from different file system*

=> Pandas Advance :

~ *Python pandas re indexing python*
~ *Pandas iteration*
~ *Python pandas sorting.*
~ *Working with text data options & customization*
~ *Indexing & selecting*
~ *Data statistical functions*
~ *Python pandas - window functions*
~ *Python pandas - date functionality*
~ *Python pandas time delta*
~ *Python pandas - categorical data*
~ *Python pandas visualization*
~ *Python pandas - iotools*

=> Dask :

~ *Dask Array*
~ *Dask Bag*
~ *Dask DataFrame*
~ *Dask Delayed*
~ *Dask Futures*
~ *Dask API*
~ *Dask SCHEDULING*
~ *Dask Understanding Performance*
~ *Dask Visualize task graphs*
~ *Dask Diagnostics (local)*
~ *Dask Diagnostics (distributed)*
~ *Dask Debugging*
~ *Dask Ordering*

=> Python Numpy :

~ *Numpy - ND array object.*
~ *Numpy - data types.*
~ *Numpy - array attributes.*
~ *Numpy - array creation routines.*
~ *Numpy - array from existing.*
~ *Data array from numerical ranges.*
~ *Numpy - indexing & slicing.*
~ *Numpy advanced indexing.*
~ *Numpy broadcasting.*
~ *Numpy - iterating over array.*
~ *Numpy - array manipulation.*
~ *Numpy - binary operators.*
~ *Numpy - string functions.*
~ *Numpy - mathematical functions.*
~ *Numpy - arithmetic operations.*
~ *Numpy - statistical functions.*
~ *Sort, search & counting functions.*
~ *Numpy - byte swapping.*
~ *Numpy - copies & views.*
~ *Numpy - matrix library.*
~ *Numpy - linear algebra*

=> Visualization :

~ *Matplotlib*
~ *Seaborn*
~ *Cufflinks*
~ *Plotly*
~ *Bokeh*

=> Statistics Basic :

- ~ *Introduction to basic statistics terms*
- ~ *Types of statistics*
- ~ *Types of data*
- ~ *Levels of measurement*
- ~ *Measures of central tendency*
- ~ *Measures of dispersion*
- ~ *Random variables*
- ~ *Set*
- ~ *Skewness*
- ~ *Covariance and correlation*

=> Probability Distribution Function :

- ~ *Probability density/distribution function*
- ~ *Types of the probability distribution*
- ~ *Binomial distribution*
- ~ *Poisson distribution*
- ~ *Normal distribution (Gaussian distribution)*
- ~ *Probability density function and mass function*
- ~ *Cumulative density function*
- ~ *Examples of normal distribution*
- ~ *Bernoulli distribution*
- ~ *Uniform distribution*
- ~ *Z stats*
- ~ *Central limit theorem*
- ~ *Estimation*

=> Statistics Advance :

- ~ *a Hypothesis*
- ~ *Hypothesis testings mechanism*
- ~ *P-value*
- ~ *T-stats*
- ~ *Student t distribution*
- ~ *T-stats vs. Z-stats: overview*
- ~ *When to use a t-tests vs. Z-tests*
- ~ *Type 1 & type 2 error*
- ~ *Bayes statistics (Bayes theorem)*
- ~ *Confidence interval(ci)*
- ~ *Confidence intervals and the margin of error*
- ~ *Interpreting confidence levels and confidence intervals*
- ~ *Chi-square test*
- ~ *Chi-square distribution using python*
- ~ *Chi-square for goodness of fit test*
- ~ *When to use which statistical distribution?*
- ~ *Analysis of variance (anova)*
- ~ *Assumptions to use anova*
- ~ *Anova three type*
- ~ *Partitioning of variance in the anova*
- ~ *Calculating using python*
- ~ *F-distribution*
- ~ *F-test (variance ratio test)*
- ~ *Determining the values of f*
- ~ *F distribution using python*

=> Linear Algebra :

- ~ *linear algebra*
- ~ *Vector*
- ~ *Scaler*
- ~ *Matrix*
- ~ *Matrix operations and manipulations*
- ~ *Dot product of two vectors*
- ~ *Transpose of a matrix*
- ~ *Linear independence of vectors*
- ~ *Rank of a matrix*
- ~ *Identity matrix or operator*
- ~ *Determinant of a matrix*
- ~ *Inverse of a matrix*
- ~ *Norm of a vector*
- ~ *Eigenvalues and eigenvectors*
- ~ *Calculus*

=> Solving Stats Problem with Python

=> Stats Problem Implementation with Spicy

=> Introduction to Machine Learning :

- ~ *AI vs ml vs dl vs ds*
- ~ *Supervised, unsupervised, semi-supervised, reinforcement learning*
- ~ *Train, test, validation split*
- ~ *Performance*
- ~ *Overfitting, under fitting*
- ~ *Bias vs variance*

=> Feature Engineering :

- ~ *Handling missing data*
- ~ *Handling imbalanced data*
- ~ *Up-sampling*
- ~ *Down-sampling*
- ~ *Smote*
- ~ *Data interpolation*

- ~ Handling outliers
- ~ Filter method
- ~ Wrapper method
- ~ Embedded methods
- ~ Feature scaling
- ~ Standardization
- ~ Mean normalization
- ~ Min-max scaling
- ~ Unit vector
- ~ Feature extraction
- ~ Pca (principle component analysis)
- ~ Data encoding
- ~ Nominal encoding
- ~ One hot encoding
- ~ One hot encoding with multiple categories
- ~ Mean encoding
- ~ Ordinal encoding
- ~ Label encoding
- ~ Target guided ordinal encoding
- ~ Covariance
- ~ Correlation check
- ~ Pearson correlation coefficient
- ~ Spearmans rank correlation
- ~ Vif

=> Feature Selection :

- ~ Feature selection
- ~ Recursive feature elimination
- ~ Backward elimination
- ~ Forward elimination

=> Exploratory Data Analysis :

- ~ Feature engineering and selection.
- ~ Analyzing bike sharing trends.
- ~ Analyzing movie reviews sentiment.
- ~ Customer segmentation and effective cross selling.
- ~ Analyzing wine types and quality.
- ~ Analyzing music trends and recommendations.
- ~ Forecasting stock and commodity prices

=> Regression :

- ~ Linear regression
- ~ Gradient descent
- ~ Multiple linear regression
- ~ Polynomial regression
- ~ R square and adjusted r square
- ~ Rmse , mse, mae comparison
- ~ Regularized linear models
- ~ Ridge regression
- ~ Lasso regression
- ~ Elastic net
- ~ Complete end-to-end project with deployment on cloud and ui

=> Logistics Regression :

- ~ Logistics regression in-depth intuition
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Hyper parameter tuning
- ~ Grid search cv
- ~ Randomize search cv
- ~ Data leakage
- ~ Confusion matrix
- ~ Precision, recall, f1 score , roc, auc
- ~ Best metric selection
- ~ Multiclass classification in lr
- ~ Complete end-to-end project with deployment in multi cloud platform

=> Decision Tree :

- ~ Decision tree classifier
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Confusion matrix
- ~ Precision, recall, f1 score , roc, auc
- ~ Best metric selection
- ~ Decision tree repressor
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Performance metrics
- ~ Complete end-to-end project with deployment in multi cloud platform

=> Support Vector Machines :

- ~ Linear svm classification
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Soft margin classification
- ~ Nonlinear svm classification
- ~ Polynomial kernel
- ~ Gaussian, rbf kernel
- ~ Data leakage
- ~ Confusion matrix

- ~ *precision, recall, f1 score, roc, auc*
- ~ *Best metric selection*
- ~ *Svm regression*
- ~ *In-depth mathematical intuition*
- ~ *In-depth geometrical intuition*
- ~ *Complete end-to-end project with deployment*

=> Naive Bayes :

- ~ *Bayes theorem*
- ~ *Multinomial naive Bayes*
- ~ *Gaussian naive Bayes*
- ~ *Various type of Bayes theorem and its intuition*
- ~ *Confusion matrix*
- ~ *precision, recall, f1 score, roc, auc*
- ~ *Best metric selection*
- ~ *Complete end-to-end project with deployment*

=> Ensemble Technique and its Types :

- ~ *Definition of ensemble techniques*
- ~ *Bagging technique*
- ~ *Bootstrap aggregation*
- ~ *Random forest (bagging technique)*
- ~ *Random forest regressor*
- ~ *Random forest classifier*
- ~ *Complete end-to-end project with deployment*

=> Boosting :

- ~ *Boosting technique*
- ~ *Ada boost*
- ~ *Gradient boost*
- ~ *Xgboost*
- ~ *Complete end-to-end project with deployment*

=> Stacking :

- ~ *Stacking technique*
- ~ *Complete end-to-end project with deployment*

=> KNN :

- ~ *Knn classifier*
- ~ *Knn regressor*
- ~ *Variants of knn*
- ~ *Brute force knn*
- ~ *K-dimension tree*
- ~ *Ball tree*
- ~ *Complete end-to-end project with deployment*

=> Dimensionality Reduction :

- ~ *The curse of dimensionality*
- ~ *Dimensionality reduction technique*
- ~ *Pca (principle component analysis)*
- ~ *Mathematics behind pca*
- ~ *Scree plots*
- ~ *Eigen-decomposition approach*

=> Clustering :

- ~ *Clustering and their types*
- ~ *K-means clustering*
- ~ *K-means++*
- ~ *Batch k-means*
- ~ *Hierarchical clustering*
- ~ *Dbscan*
- ~ *Evaluation of clustering*
- ~ *Homogeneity, completeness and v-measure*
- ~ *Silhouette coefficient*
- ~ *Davies-bouldin index*
- ~ *Contingency matrix*
- ~ *Pair confusion matrix*
- ~ *Extrinsic measure*
- ~ *Intrinsic measure*
- ~ *Complete end-to-end project with deployment*

=> Anomaly Detection :

- ~ *Anomaly detection types*
- ~ *Anomaly detection applications*
- ~ *Isolation forest anomaly detection algorithm*
- ~ *Isolation forest anomaly detection algorithm*
- ~ *Support vector machine anomaly detection algorithm*
- ~ *Dbscan algorithm for anomaly detection*
- ~ *Complete end-to-end project with deployment*

=> Time-Series :

- ~ *What is a time series?*
- ~ *Old techniques*
- ~ *Arima*
- ~ *Acf and pacf*
- ~ *Time-dependent seasonal components.*
- ~ *Autoregressive (ar),*
- ~ *Moving average (ma) and mixed arma- modeler.*
- ~ *The random walk model.*
- ~ *Box-jenkins methodology.*
- ~ *Forecasts with arima and var models.*

- ~ *Dynamic models with time-shifted explanatory variables.*
- ~ *The koyck transformation.*
- ~ *Partial adjustment and adaptive expectation models.*
- ~ *Granger's causality tests.*
- ~ *Stationarity, unit roots and integration*
- ~ *Time series model performance*
- ~ *Various approach to solve time series problem*
- ~ *Complete end-to-end project with deployment*
- ~ *Prediction of nifty stock price and deployment*

=> NLP Basic :

- ~ *Tokenization*
- ~ *Pos tags and chunking*
- ~ *Stop words*
- ~ *Stemming and lemmatization*
- ~ *Named entity recognition (ner)*
- ~ *Word vectorization (word embedding)*
- ~ *Tfidf*
- ~ *Complete end-to-end project with deployment*

=> Machine Learning Pipeline :

- ~ *Aws segmaker*
- ~ *Aure ml studio*
- ~ *ML flow*
- ~ *Kube flow*

=> Model Retraining Approach

=> Auto ML :

- ~ *H2o*
- ~ *Pycaret*
- ~ *Auto sklearn*
- ~ *Auto time series*
- ~ *Auto viml*
- ~ *Auto gluon*
- ~ *Auto viz*
- ~ *Tpot*
- ~ *Auto neuro*

=> Neural Network A Simple perception :

- ~ *Detail mathematical explanation*
- ~ *Neural network overview and its use case.*
- ~ *Various neural network architect overview.*
- ~ *Use case of neural network in nlp and computer vision.*
- ~ *Activation function -all name*
- ~ *Multilayer network.*
- ~ *Loss functions. - all 10*
- ~ *The learning mechanism.*
- ~ *Optimizers. - all 10*
- ~ *Forward and backward propagation.*
- ~ *Weight initialization technique*
- ~ *Vanishing gradient problem*
- ~ *Exploding gradient problem*
- ~ *Visualization of nn*

=> Hardware Setup - GPU :

- ~ *Gpu introduction.*
- ~ *Various type of gpu configuration.*
- ~ *Gpu provider and its pricing.*
- ~ *Paper space gpu setup.*
- ~ *Running model in gpu*

=> Tensor Flow Installation Environment Setup For Deep Learning :

- ~ *Colab pro setup*
- ~ *Tensor flow installation 2.0 .*
- ~ *Tensor flow installation 1.6 with virtual environment.*
- ~ *Tensor flow 2.0 function.*
- ~ *Tensor flow 2.0 neural network creation.*
- ~ *Tensor flow 1.6 functions.*
- ~ *Tensor flow 1.6 neural network and its functions.*
- ~ *Keras introduction.*
- ~ *Keras in-depth with neural network creation.*
- ~ *Mini project in tensorflow.*
- ~ *Tensorspace*
- ~ *Tensorboard integration*
- ~ *Tensorflow playground*
- ~ *Netron*

=> Pytorch :

- ~ *pytorch installation.*
- ~ *Pytorch functional overview.*
- ~ *Pytorch neural network creation.*

=> Mxnet :

- ~ *Mxnet installation*
- ~ *Mxnet in depth function overview*
- ~ *Mxnet model creation and training*

=> Keras Tuner :

- ~ *Keras tuner installation and overview*
- ~ *Finding best parameter from keras tuner*
- ~ *Keras tuner application across various neural network*

=> CNN Overview :

- ~ *Cnn definition*
- ~ *Various cnn based architecture*
- ~ *Explanation end to end cnn network*
- ~ *Cnn explainer*
- ~ *Training cnn*
- ~ *Deployment in azure cloud*
- ~ *Performance tuning of cnn network*

=> Advance Computer Vision - Part 1 :

- ~ *Various cnn architecture with research paper and mathematics*
- ~ *Lenet-5 variants with research paper and practical*
- ~ *Alexnet variants with research paper and practical*
- ~ *Googlenet variants with research paper and practical*
- ~ *Transfer learning*
- ~ *Vggnet variants with research paper and practical*
- ~ *Resnet variants with research paper and practical*
- ~ *Inception net variants with research paper and practical*
- ~ *Darknet variants with research paper and practical*

=> Advance Computer Vision - Part 2 :

- ~ *Object detection in-depth*
- ~ *Transfer learning*
- ~ *Rcnn with research paper and practical*
- ~ *Fast rcnn with research paper and practical*
- ~ *Faster r cnn with research paper and practical*
- ~ *Ssd with research paper and practical*
- ~ *Ssd lite with research paper and practical*

=> Training of Custom Object Detection :

- ~ *Tfod introduction*
- ~ *Environment setup with tfod*
- ~ *Gpu vs tpu vs cpu*
- ~ *Various gpu comparison*

=> Advance Computer Vision - Part 3 :

- ~ *Yolo v1 with research paper and practical*
- ~ *Yolo v2 with research paper and practical*
- ~ *Yolo v3 with research paper and practical*
- ~ *Yolo v4 with research paper and practical*
- ~ *Yolo v5 with research paper and practical*
- ~ *Retina net*
- ~ *Face net*
- ~ *Detectron2 with practical and live testing*

=> Object Segmentation :

- ~ *Semantic segmentation*
- ~ *Panoptic segmentation*
- ~ *Masked rcnn*
- ~ *Practical with detectron*
- ~ *Practical with tfod*

=> Object Tracking :

- ~ *Detail of object tracking*
- ~ *Kalman filtering*
- ~ *Sort*
- ~ *Deep sort*
- ~ *Object tracking live project with live camera testing*

=> OCR :

- ~ *Introduction to ocr*
- ~ *Various framework and api for ocr*
- ~ *Practical implementation of ocr*
- ~ *Live project deployment for bill parsing*

=> Image Captioning :

- ~ *Image captioning overview*
- ~ *Image captioning project with deployment*

=> Tensorflow JS :

- ~ *Tensorflow js overview*
- ~ *Tfjs implementation*

=> Model Conversion :

- ~ *Tfjs*
- ~ *Tflite*
- ~ *Tfrt*
- ~ *Torch to tf model*
- ~ *Mxnet to tf conversion*

=> Advance NLP with Deep Learning :

- ~ *Overview computational linguistic.*
- ~ *History of nlp.*
- ~ *Why nlp*
- ~ *Use of nlp*

=> Text Processing Importing Text :

- ~ *Web scrapping.*
- ~ *Text processing*
- ~ *Understanding regex.*
- ~ *Text normalization*
- ~ *Word count.*

- ~ Frequency distribution.
- ~ Text annotation.
- ~ Use of annotator.
- ~ String tokenization
- ~ Annotator creation.
- ~ Sentence processing.
- ~ Lemmatization in text processing
- ~ Pos
- ~ Named entity recognition
- ~ Dependency parsing in text.
- ~ Sentimental analysis

=> Spacy :

- ~ Spacy overview.
- ~ Spacy function
- ~ Spacy function implementation in text processing.
- ~ Pos tagging, challenges and accuracy.
- ~ Entities and named entry recognition
- ~ Interpolation, language models
- ~ Nltk
- ~ Text blob
- ~ Stanford nlp

=> RNN :

- ~ Recurrent neural networks.
- ~ Long short term memory (lstm)
- ~ Bi lstm.
- ~ Stacked lstm
- ~ Gru implementation.
- ~ Building a story writer using character level rnn.

=> Word Embedding :

- ~ Word embedding
- ~ Co-occurrence vectors
- ~ Word2vec
- ~ Doc2vec

=> Attention Based Model :

- ~ Seq 2 seq.
- ~ Encoders and decoders.
- ~ Attention mechanism.
- ~ Attention neural networks
- ~ Self-attention

=> Transfer Learning in NLP :

- ~ Introduction to transformers.
- ~ Bert model.
- ~ Elmo model.
- ~ Gpt1 model
- ~ Gpt2 model.
- ~ Albert model.
- ~ Distilbert model

=> Deployment of Model and Performance Tuning :

- ~ Deep learning model deployment strategies.
- ~ Deep learning project architecture
- ~ Deep learning model deployment phase.
- ~ Deep learning model retraining phase.
- ~ Deep learning model deployment in aws.
- ~ Deep learning model deployment in azure.
- ~ Deep learning model deployment in gcloud.

=> API for Speech and Vision :

- ~ AWS
- ~ Azure
- ~ GCP

=> Big Data Introduction :

- ~ What is big data?
- ~ Big data application
- ~ Big data pipeline

=> Hadoop :

- ~ Hadoop introduction
- ~ Hadoop setup and installation

=> Spark :

- ~ Spark
- ~ Spark overview.
- ~ Spark installation.
- ~ Spark rdd.
- ~ Spark data frame.
- ~ Spark architecture.
- ~ Spark ml lib
- ~ Spark NLP
- ~ Spark linear regression
- ~ Spark logistic regression
- ~ Spark decision tree
- ~ Spark naive bayes
- ~ Spark xg boost.
- ~ Spark time series
- ~ Spark deployment in local server

- ~ Spark job automation with
- ~ Scheduler

=> Kafka :

- ~ Kafka introduction
- ~ Kafka installation
- ~ Spark streaming
- ~ Spark with Kafka

=> ML Ops :

- ~ Jenkins
- ~ Kubernetes
- ~ Elasticsearch
- ~ Kibana
- ~ Git

=> SQL :

- ~ Introduction
- ~ ER Daigram
- ~ Schema Design
- ~ Normalization
- ~ SQL SELECT Statement
- ~ SQL SELECT Using common functions
- ~ SQL JOIN Overview
- ~ INNER JOIN
- ~ LEFT JOIN
- ~ RIGHT JOIN
- ~ FULL JOIN
- ~ SQL Best Practice
- ~ INNER JOIN - Advanced
- ~ INNER JOIN & LEFT JOIN Combo
- ~ SELF JOIN
- ~ Joins & Aggregation - Subqueries
- ~ Sorting
- ~ Independent Subqueries
- ~ Correlated Subqueries
- ~ Analytic Function
- ~ Set Operations
- ~ SQL Views
- ~ Create a view
- ~ Create a view using DDL
- ~ SQL Insert - Advanced Technique
- ~ INSERT to create a table
- ~ INSERT new data to an existing table-1
- ~ INSERT new data to an existing table-2
- ~ INSERT new data to an existing table-3
- ~ INSERT new data to an existing table-4
- ~ SQL Update - Advanced Technique and TCL
- ~ SQL DELETE and TCL
- ~ SQL Constraints
- ~ SQL Aggregations
- ~ SQL Programmability
- ~ SQL Query Performance
- ~ SQL Xtras

=> Advance Excel :

- ~ Microsoft Excel Fundamentals
- ~ Entering and Editing Text and Formulas
- ~ Working with Basic Excel Functions
- ~ Modifying an Excel Worksheet
- ~ Formatting Data in an Excel Worksheet
- ~ Inserting Images and Shapes into an Excel Worksheet
- ~ Creating Basic Charts in Excel
- ~ Printing an Excel Worksheet
- ~ Working with Excel Templates
- ~ Working with an Excel List
- ~ Excel List Functions
- ~ Excel Data Validation
- ~ Importing and Exporting Data
- ~ Excel PivotTables
- ~ Working with Excel's PowerPivot Tools
- ~ Working with Large Sets of Excel Data
- ~ Conditional Functions
- ~ Lookup Functions
- ~ Text Based Functions
- ~ Auditing an Excel Worksheet
- ~ Protecting Excel Worksheets and Workbooks
- ~ Mastering Excel "What If?"Tools
- ~ Automating Repetitive Tasks in Excel with Macros
- ~ Macro Recorder Tool
- ~ Excel VBA Concepts
- ~ Advance VBA
- ~ Preparing and Cleaning Up Data with VBA
- ~ VBA to Automate Excel Formulas
- ~ Preparing Weekly Report
- ~ Working with Excel VBA User Forms
- ~ Importing Data from Text Files

=> Tableau :

- ~ Talking about Business Intelligence

- ~ Tools and Methodologies used in BI
- ~ Why Visualization is getting more popular
- ~ Why Tableau?
- ~ Gartner Magic Quadrant of Market Leaders
- ~ Future business impact of BI
- ~ Tableau Products
- ~ Tableau Architecture
- ~ BI Project Execution
- ~ Tableau Installation in local system
- ~ Introduction to Tableau Prep
- ~ Tableau Prep Builder User Interface
- ~ Data Preparation techniques using Tableau Prep Builder tool
- ~ How to connect Tableau with different data source
- ~ Visual Segments
- ~ Visual Analytics in depth
- ~ Filters, Parameters & Sets
- ~ Tableau Calculations using functions
- ~ Tableau Joins
- ~ Working with multiple data source (Data Blending)
- ~ Building Predictive Models
- ~ Dynamic Dashboards and Stories
- ~ Sharing your Reports
- ~ Tableau Server
- ~ User Security
- ~ Scheduling
- ~ PDF File
- ~ JSON File
- ~ Spatial File
- ~ Statistical File
- ~ Microsoft SQL Server
- ~ Salesforce
- ~ AWS
- ~ Azure
- ~ Google Analytics
- ~ R
- ~ Python
- ~ Hadoop
- ~ OneDrive
- ~ Microsoft Access
- ~ SAP HANA
- ~ SharePoint
- ~ Snowflake
- ~ Subject
- ~ Planning
- ~ Pen & Paper approach
- ~ Tools
- ~ Color theme
- ~ Shapes
- ~ Fonts
- ~ Image Selection
- ~ text position
- ~ visual placing
- ~ Story layout & design
- ~ Dashboard planning

=> Power BI :

- ~ Power BI introduction and overview
- ~ Key Benefits of Power BI
- ~ Power BI Architecture
- ~ Power BI Process
- ~ Components of Power BI
- ~ Power BI - Building Blocks
- ~ Power BI vs other BI tools
- ~ Power Installation
- ~ Overview of Power BI Desktop
- ~ Data Sources in Power BI Desktop
- ~ Connecting to a data Sources
- ~ Query Editor in Power BI
- ~ Views in Power BI
- ~ Field Pane
- ~ Visual Pane
- ~ Custom Visual Option
- ~ Filters
- ~ Introduction to using Excel data in Power BI
- ~ Exploring live connections to data with Power BI
- ~ Connecting directly to SQL Azure, HD Spark, SQL Server Analysis Services/ My SQL
- ~ Import Power View and Power Pivot to Power BI
- ~ Power BI Publisher for Excel
- ~ Content packs
- ~ Introducing Power BI Mobile
- ~ Power Query Introduction
- ~ Query Editor Interface
- ~ Clean and Transform your data with Query Editor
- ~ Data Type
- ~ Column Transformations vs Adding Columns
- ~ Text Transformations
- ~ Cleaning irregularly formatted data -Transpose
- ~ Date and Time Calculations
- ~ Advance editor: Use Case

- ~ Query Level Parameters
- ~ Combining Data Merging and Appending
- ~ Data Modelling
- ~ Calculated Columns
- ~ Measures/New Quick Measures
- ~ Calculated Tables
- ~ Optimizing Data Models
- ~ Row Context vs Set Context
- ~ Cross Filter Direction
- ~ Manage Data Relationship
- ~ Why is DAX important?
- ~ Advanced calculations using Calculate functions
- ~ DAX queries
- ~ DAX Parameter Naming
- ~ Time Intelligence Functions
- ~ Types of visualization in a Power BI report
- ~ Custom visualization to a Power BI report
- ~ Matrixes and tables
- ~ Getting started with color formatting and axis properties
- ~ Change how a chart is sorted in a Power BI report
- ~ Move, resize, and pop out a visualization in a Power BI report
- ~ Drill down in a visualization in Power BI

=> GPT-3

=> GAN

=> Reinforcement Learning

Project details :-

=> Python Project :

- ~ Weeding script
- ~ Image resizing
- ~ Jupyter notebook merging, reading etc.
- ~ Sending emails
- ~ Weather app
- ~ Memes generator
- ~ Food log app
- ~ Web scrapping
- ~ Web crawlers for image data sentiment analysis and product review sentiment analysis.
- ~ Integration with web portal.
- ~ Integration with rest api, web portal and mongo db. on azure
- ~ Deployment on web portal on azure.
- ~ Text mining
- ~ Social media data churn
- ~ Mass copy, paste

=> Chatbot Projects :

- ~ Chatbot using Microsoft Luis
- ~ Chatbot using google dialog flow
- ~ Chatbot using amazon lex
- ~ Chatbot using rasa nlu
- ~ Deployment of Chabot with web , telegram , WhatsApp, skype

=> Major Projects :

- ~ Healthcare analytics prediction of medicines based on Fitbit band.
- ~ Revenue forecasting for startups.
- ~ Prediction of order cancellation at the time of ordering inventories.
- ~ anomaly detection in inventory packaged material.
- ~ Fault detection in wafers based on sensor data.
- ~ Demand forecasting for fmcg product.
- ~ Threat identification in security system.
- ~ Defect detection in vehicle engine.
- ~ Food price forecasting with zomato dataset.
- ~ Fault detection in wafers based on sensor data.
- ~ Cement strength reg.
- ~ Credit card fraud.
- ~ Forest cover classification.
- ~ Fraud detection.
- ~ Income prediction.
- ~ Mushroom classifier.
- ~ phishing classifier
- ~ Thyroid detection.
- ~ Visibility climate

=> Computer Vision Project :

- ~ Traffic surveillance system.
- ~ Object identification.
- ~ Object tracking.
- ~ Object classification.
- ~ Tensorflow object detection.
- ~ Image to text processing.
- ~ Speech to speech analysis.
- ~ Vision based attendance system

=> Mini NLP Project :

- ~ Machine translation.
- ~ Abstractive text summarization.
- ~ Keyword spotting.
- ~ Language modelling.

~ Document summarization

=> NLP Transfer Learning Project :

- ~ Deployment and integration with UI machine translation.
- ~ Question answering (like chat bot)
- ~ Sentiment analysis imdb.
- ~ Text search (with synonyms).
- ~ Text classifications.
- ~ Spelling corrector.
- ~ Entity (person, place or brand) recognition.
- ~ Text summarization.
- ~ Text similarity (paraphrase).
- ~ Topic detection.
- ~ Language identification.
- ~ Document ranking.
- ~ Fake news detection
- ~ Plagiarism checker
- ~ Text summarization extractive
- ~ Text summarization abstractive.

=> NLP End to End Project with Architecture and Deployment :

- ~ Movie review using bert
- ~ NER using Bert
- ~ Pos bert
- ~ Text generation gpt 2
- ~ Text summarization xlnet
- ~ Abstract bert
- ~ Machine translation
- ~ Nlp text summarization custom
- ~ Keras/tensorflow
- ~ Language identification
- ~ Text classification using fast bert
- ~ Neuralcore
- ~ Detecting fake text using gltr with bert and gpt2
- ~ Fake news detector using gpt2
- ~ Python plagiarism checker type a message
- ~ Question answering

=> NLP Project End to End with Deployment in Various Cloud and UI Integration :

- ~ Topic modeling.
- ~ Word sense disambiguation
- ~ Text to speech
- ~ Keyword spotting
- ~ Document ranking
- ~ Text search (with synonyms)
- ~ Language modeling
- ~ Spam detector
- ~ Image captioning

=> SQL Project :

- ~ Ecommerce Analysis - Tableau Integration
- ~ Sales Data Analysis - Tableau Integration

=> Tableau Project :

- ~ Human Resource - Tableau
- ~ Supply Chain - Tableau
- ~ Sale Return - Tableau
- ~ E-Commerce Customer Analysis
- ~ Project Management Dashbaord
- ~ Sales Dashboard

=> Power BI Project :

- ~ Cost Insights - Power BI
- ~ Management Insights- Power BI
- ~ Retail Insights- Power BI

Data Science Masters

Topic Name : DATA SCIENCE

Sub-topic Name : FULL STACK DATA SCIENCE

Course link : <https://ineuron.ai/course/Data-Science-Masters>

Course Description :-

This is a data science masters course where you will learn all the stack required to work in data science, data analytics and big data industry including ML ops and cloud infrastructure .

Course Features :-

- => Full stack Data Science masters certification
- => 56 + hands-on industry real-time projects.
- => 500 hours of recorded classes.
- => Lifetime Dashboard access
- => Assignment in all the module
- => Quiz in every module
- => A live project with real-time implementation

What you will learn :-

- => Python
- => Stats
- => Machine learning
- => Deep learning
- => Computer vision
- => Natural language processing
- => Data analytics
- => Big data
- => ML ops
- => Cloud
- => Data structure and algorithm
- => Architecture
- => Domain wise project
- => Databases
- => Negotiations skills
- => Mock interview
- => Interview preparation
- => Resume building after every module

Requirements :-

- => Dedication
- => Computer with i3 and above configuration

Instructors :-

=> Sunny Bhaveen Chandra :

~ Sr. Data Scientist and lecturer at iNeuron.ai with working experience in computer vision, natural language processing and embedded systems. Hands-on experience leveraging machine learning, deep learning, transfer learning models to solve challenging business problems. Also, he has a vast interest in Robotics.

=> Sourangshu Pal :

~ Visual Computing Engineer and instructor at iNeuron.ai having 3 years of diverse experience in the discipline of visual computing with specialization in Deep Learning and Computer Graphics. Loves to analyze, process, and model visual data then interpret the insights to create actionable plans for solving challenging business problems.

=> Khushali Shah :

~ A data scientist having rich experience working with MNCs and start-ups in the field of data science and machine learning. She has expertise in Chatbot development for various domains & been developing professionally for 6+ years with diverse job history. She also had positions in software module development, web app development, functional designs, requirement gathering, client interaction, and server setup/admin & can help everywhere in the stack; she loves wearing multiple hats to an extent. She also believes in enhancing her skills by training and learning new things day by day.

=> krish naik :

~ Having 10+ years of experience in Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

=> Sudhanshu Kumar :

~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

=> Course Introduction :

- ~ course overview and dashboard description
- ~ Introduction of data science and its application in day to day life
- ~ Programming language overview
- ~ Installation (tools: sublime, vscode, pycharm, anaconda, atom, jupyter notebook, kite)
- ~ Virtual environment
- ~ Why python

=> Python Basic :

- ~ Introduction of python and comparison with other programming language Preview
- ~ Installation of anaconda distribution and other python ide
- ~ Python objects, number & Booleans, strings
- ~ Container objects, mutability of objects
- ~ Operators - arithmetic, bitwise, comparison and assignment operators, operators precedence and associativity
- ~ Conditions (if else, if-elif-else), loops (while, for)
- ~ Break and continue statement and range function

=> String Objects :

- ~ basic data structure in python
- ~ String object basics
- ~ String inbuilt methods
- ~ Splitting and joining strings
- ~ String format functions

=> List Object Basics :

- ~ List methods
- ~ List as stack and queues
- ~ List comprehensions

=> Tuples, Sets, Dictionaries & its Function :

- ~ Dictionary object methods
- ~ Dictionary comprehensions
- ~ Dictionary view objects
- ~ Functions basics, parameter passing, iterators
- ~ Generator functions
- ~ Lambda functions
- ~ Map, reduce, filter functions

=> Memory Management :

- ~ Multithreading
- ~ Multiprocessing

=> OOPs Concepts :

- ~ oops basic concepts.
- ~ Creating classes
- ~ Pillars of oops
- ~ Inheritance
- ~ Polymorphism
- ~ Encapsulation
- ~ Abstraction
- ~ Decorator
- ~ Class methods and static methods
- ~ Special (magic/dunder) methods
- ~ Property decorators - getters, setters, and deletes

=> Files :

- ~ Working with files
- ~ Reading and writing files
- ~ Buffered read and write
- ~ Other file methods
- ~ Logging, debugger
- ~ Modules and import statements

=> Exception Handling and Difference between Exception and Error :

- ~ Exceptions handling with try-except
- ~ Custom exception handling
- ~ List of general use exception
- ~ Best practice exception handling

=> GUI Framework :

- ~ What is desktop and standalone application
- ~ Use of desktop app
- ~ Examples of desktop app
- ~ Tinker
- ~ Kivy

=> Database :

- ~ SQLite
- ~ MySQL
- ~ Mongo dB
- ~ NoSQL - Cassandra

=> Web API :

- ~ What is web API
- ~ Difference b/w API and web API
- ~ Rest and soap architecture

~ Restful services

=> Flask :

- ~ Flask introduction
- ~ Flask application
- ~ Open link flask
- ~ App routing flask
- ~ Url building flask
- ~ Http methods flask
- ~ Templates flask
- ~ Flask project: food app
- ~ Postman
- ~ Swagger

=> Django :

- ~ Django introduction
- ~ Django project: weather app
- ~ Django project: memes generator
- ~ Django project: blog app
- ~ Django project in cloud

=> Stream Lit :

- ~ Stream lit introduction
- ~ Stream lit project structure
- ~ Stream lit project in cloud

=> Pandas Basic :

- ~ Python pandas - series
- ~ Python pandas data frame
- ~ Python pandas panel
- ~ Python pandas - basic functionality
- ~ Reading data from different file system

=> Pandas Advance :

- ~ Python pandas re indexing python
- ~ Pandas iteration
- ~ Python pandas sorting.
- ~ Working with text data options & customization
- ~ Indexing & selecting
- ~ Data statistical functions
- ~ Python pandas - window functions
- ~ Python pandas - date functionality
- ~ Python pandas time delta
- ~ Python pandas - categorical data
- ~ Python pandas visualization
- ~ Python pandas - iotools

=> Dask :

- ~ Dask Array
- ~ Dask Bag
- ~ Dask DataFrame
- ~ Dask Delayed
- ~ Dask Futures
- ~ Dask API
- ~ Dask SCHEDULING
- ~ Dask Understanding Performance
- ~ Dask Visualize task graphs
- ~ Dask Diagnostics (local)
- ~ Dask Diagnostics (distributed)
- ~ Dask Debugging
- ~ Dask Ordering

=> Python Numpy :

- ~ Numpy - ND array object.
- ~ Numpy - data types.
- ~ Numpy - array attributes.
- ~ Numpy - array creation routines.
- ~ Numpy - array from existing.
- ~ Data array from numerical ranges.
- ~ Numpy - indexing & slicing.
- ~ Numpy advanced indexing.
- ~ Numpy broadcasting.
- ~ Numpy - iterating over array.
- ~ Numpy - array manipulation.
- ~ Numpy - binary operators.
- ~ Numpy - string functions.
- ~ Numpy - mathematical functions.
- ~ Numpy - arithmetic operations.
- ~ Numpy - statistical functions.
- ~ Sort, search & counting functions.
- ~ Numpy - byte swapping.
- ~ Numpy - copies & views.
- ~ Numpy - matrix library.
- ~ Numpy - linear algebra

=> Visualization :

- ~ Matplotlib
- ~ Seaborn
- ~ Cufflinks
- ~ Plotly
- ~ Bokeh

=> Statistics Basic :

- ~ *Introduction to basic statistics terms*
- ~ *Types of statistics*
- ~ *Types of data*
- ~ *Levels of measurement*
- ~ *Measures of central tendency*
- ~ *Measures of dispersion*
- ~ *Random variables*
- ~ *Set*
- ~ *Skewness*
- ~ *Covariance and correlation*

=> Probability Distribution Function :

- ~ *Probability density/distribution function*
- ~ *Types of the probability distribution*
- ~ *Binomial distribution*
- ~ *Poisson distribution*
- ~ *Normal distribution (Gaussian distribution)*
- ~ *Probability density function and mass function*
- ~ *Cumulative density function*
- ~ *Examples of normal distribution*
- ~ *Bernoulli distribution*
- ~ *Uniform distribution*
- ~ *Z stats*
- ~ *Central limit theorem*
- ~ *Estimation*

=> Statistics Advance :

- ~ *a Hypothesis*
- ~ *Hypothesis testings mechanism*
- ~ *P-value*
- ~ *T-stats*
- ~ *Student t distribution*
- ~ *T-stats vs. Z-stats: overview*
- ~ *When to use a t-tests vs. Z-tests*
- ~ *Type 1 & type 2 error*
- ~ *Bayes statistics (Bayes theorem)*
- ~ *Confidence interval(ci)*
- ~ *Confidence intervals and the margin of error*
- ~ *Interpreting confidence levels and confidence intervals*
- ~ *Chi-square test*
- ~ *Chi-square distribution using python*
- ~ *Chi-square for goodness of fit test*
- ~ *When to use which statistical distribution?*
- ~ *Analysis of variance (anova)*
- ~ *Assumptions to use anova*
- ~ *Anova three type*
- ~ *Partitioning of variance in the anova*
- ~ *Calculating using python*
- ~ *F-distribution*
- ~ *F-test (variance ratio test)*
- ~ *Determining the values of f*
- ~ *F distribution using python*

=> Linear Algebra :

- ~ *linear algebra*
- ~ *Vector*
- ~ *Scaler*
- ~ *Matrix*
- ~ *Matrix operations and manipulations*
- ~ *Dot product of two vectors*
- ~ *Transpose of a matrix*
- ~ *Linear independence of vectors*
- ~ *Rank of a matrix*
- ~ *Identity matrix or operator*
- ~ *Determinant of a matrix*
- ~ *Inverse of a matrix*
- ~ *Norm of a vector*
- ~ *Eigenvalues and eigenvectors*
- ~ *Calculus*

=> Solving Stats Problem with Python

=> Stats Problem Implementation with Spicy

=> Introduction to Machine Learning :

- ~ *AI vs ml vs dl vs ds*
- ~ *Supervised, unsupervised, semi-supervised, reinforcement learning*
- ~ *Train, test, validation split*
- ~ *Performance*
- ~ *Overfitting, under fitting*
- ~ *Bias vs variance*

=> Feature Engineering :

- ~ *Handling missing data*
- ~ *Handling imbalanced data*
- ~ *Up-sampling*
- ~ *Down-sampling*
- ~ *Smote*
- ~ *Data interpolation*

- ~ Handling outliers
- ~ Filter method
- ~ Wrapper method
- ~ Embedded methods
- ~ Feature scaling
- ~ Standardization
- ~ Mean normalization
- ~ Min-max scaling
- ~ Unit vector
- ~ Feature extraction
- ~ Pca (principle component analysis)
- ~ Data encoding
- ~ Nominal encoding
- ~ One hot encoding
- ~ One hot encoding with multiple categories
- ~ Mean encoding
- ~ Ordinal encoding
- ~ Label encoding
- ~ Target guided ordinal encoding
- ~ Covariance
- ~ Correlation check
- ~ Pearson correlation coefficient
- ~ Spearmans rank correlation
- ~ Vif

=> Feature Selection :

- ~ Feature selection
- ~ Recursive feature elimination
- ~ Backward elimination
- ~ Forward elimination

=> Exploratory Data Analysis :

- ~ Feature engineering and selection.
- ~ Analyzing bike sharing trends.
- ~ Analyzing movie reviews sentiment.
- ~ Customer segmentation and effective cross selling.
- ~ Analyzing wine types and quality.
- ~ Analyzing music trends and recommendations.
- ~ Forecasting stock and commodity prices

=> Regression :

- ~ Linear regression
- ~ Gradient descent
- ~ Multiple linear regression
- ~ Polynomial regression
- ~ R square and adjusted r square
- ~ Rmse , mse, mae comparison
- ~ Regularized linear models
- ~ Ridge regression
- ~ Lasso regression
- ~ Elastic net
- ~ Complete end-to-end project with deployment on cloud and ui

=> Logistics Regression :

- ~ Logistics regression in-depth intuition
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Hyper parameter tuning
- ~ Grid search cv
- ~ Randomize search cv
- ~ Data leakage
- ~ Confusion matrix
- ~ Precision, recall, f1 score , roc, auc
- ~ Best metric selection
- ~ Multiclass classification in lr
- ~ Complete end-to-end project with deployment in multi cloud platform

=> Decision Tree :

- ~ Decision tree classifier
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Confusion matrix
- ~ Precision, recall, f1 score , roc, auc
- ~ Best metric selection
- ~ Decision tree repressor
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Performance metrics
- ~ Complete end-to-end project with deployment in multi cloud platform

=> Support Vector Machines :

- ~ Linear svm classification
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Soft margin classification
- ~ Nonlinear svm classification
- ~ Polynomial kernel
- ~ Gaussian, rbf kernel
- ~ Data leakage
- ~ Confusion matrix

- ~ *precision, recall, f1 score, roc, auc*
- ~ *Best metric selection*
- ~ *Svm regression*
- ~ *In-depth mathematical intuition*
- ~ *In-depth geometrical intuition*
- ~ *Complete end-to-end project with deployment*

=> Naive Bayes :

- ~ *Bayes theorem*
- ~ *Multinomial naive Bayes*
- ~ *Gaussian naive Bayes*
- ~ *Various type of Bayes theorem and its intuition*
- ~ *Confusion matrix*
- ~ *precision, recall, f1 score, roc, auc*
- ~ *Best metric selection*
- ~ *Complete end-to-end project with deployment*

=> Ensemble Technique and its Types :

- ~ *Definition of ensemble techniques*
- ~ *Bagging technique*
- ~ *Bootstrap aggregation*
- ~ *Random forest (bagging technique)*
- ~ *Random forest regressor*
- ~ *Random forest classifier*
- ~ *Complete end-to-end project with deployment*

=> Boosting :

- ~ *Boosting technique*
- ~ *Ada boost*
- ~ *Gradient boost*
- ~ *Xgboost*
- ~ *Complete end-to-end project with deployment*

=> Stacking :

- ~ *Stacking technique*
- ~ *Complete end-to-end project with deployment*

=> KNN :

- ~ *Knn classifier*
- ~ *Knn regressor*
- ~ *Variants of knn*
- ~ *Brute force knn*
- ~ *K-dimension tree*
- ~ *Ball tree*
- ~ *Complete end-to-end project with deployment*

=> Dimensionality Reduction :

- ~ *The curse of dimensionality*
- ~ *Dimensionality reduction technique*
- ~ *Pca (principle component analysis)*
- ~ *Mathematics behind pca*
- ~ *Scree plots*
- ~ *Eigen-decomposition approach*

=> Clustering :

- ~ *Clustering and their types*
- ~ *K-means clustering*
- ~ *K-means++*
- ~ *Batch k-means*
- ~ *Hierarchical clustering*
- ~ *Dbscan*
- ~ *Evaluation of clustering*
- ~ *Homogeneity, completeness and v-measure*
- ~ *Silhouette coefficient*
- ~ *Davies-bouldin index*
- ~ *Contingency matrix*
- ~ *Pair confusion matrix*
- ~ *Extrinsic measure*
- ~ *Intrinsic measure*
- ~ *Complete end-to-end project with deployment*

=> Anomaly Detection :

- ~ *Anomaly detection types*
- ~ *Anomaly detection applications*
- ~ *Isolation forest anomaly detection algorithm*
- ~ *Isolation forest anomaly detection algorithm*
- ~ *Support vector machine anomaly detection algorithm*
- ~ *Dbscan algorithm for anomaly detection*
- ~ *Complete end-to-end project with deployment*

=> Time-Series :

- ~ *What is a time series?*
- ~ *Old techniques*
- ~ *Arima*
- ~ *Acf and pacf*
- ~ *Time-dependent seasonal components.*
- ~ *Autoregressive (ar),*
- ~ *Moving average (ma) and mixed arma- modeler.*
- ~ *The random walk model.*
- ~ *Box-jenkins methodology.*
- ~ *Forecasts with arima and var models.*

- ~ *Dynamic models with time-shifted explanatory variables.*
- ~ *The koyck transformation.*
- ~ *Partial adjustment and adaptive expectation models.*
- ~ *Granger's causality tests.*
- ~ *Stationarity, unit roots and integration*
- ~ *Time series model performance*
- ~ *Various approach to solve time series problem*
- ~ *Complete end-to-end project with deployment*
- ~ *Prediction of nifty stock price and deployment*

=> NLP Basic :

- ~ *Tokenization*
- ~ *Pos tags and chunking*
- ~ *Stop words*
- ~ *Stemming and lemmatization*
- ~ *Named entity recognition (ner)*
- ~ *Word vectorization (word embedding)*
- ~ *Tfidf*
- ~ *Complete end-to-end project with deployment*

=> Machine Learning Pipeline :

- ~ *Aws segmaker*
- ~ *Aure ml studio*
- ~ *ML flow*
- ~ *Kube flow*

=> Model Retraining Approach

=> Auto ML :

- ~ *H2o*
- ~ *Pycaret*
- ~ *Auto sklearn*
- ~ *Auto time series*
- ~ *Auto viml*
- ~ *Auto gluon*
- ~ *Auto viz*
- ~ *Tpot*
- ~ *Auto neuro*

=> Neural Network A Simple perception :

- ~ *Detail mathematical explanation*
- ~ *Neural network overview and its use case.*
- ~ *Various neural network architect overview.*
- ~ *Use case of neural network in nlp and computer vision.*
- ~ *Activation function -all name*
- ~ *Multilayer network.*
- ~ *Loss functions. - all 10*
- ~ *The learning mechanism.*
- ~ *Optimizers. - all 10*
- ~ *Forward and backward propagation.*
- ~ *Weight initialization technique*
- ~ *Vanishing gradient problem*
- ~ *Exploding gradient problem*
- ~ *Visualization of nn*

=> Hardware Setup - GPU :

- ~ *Gpu introduction.*
- ~ *Various type of gpu configuration.*
- ~ *Gpu provider and its pricing.*
- ~ *Paper space gpu setup.*
- ~ *Running model in gpu*

=> Tensor Flow Installation Environment Setup For Deep Learning :

- ~ *Colab pro setup*
- ~ *Tensor flow installation 2.0 .*
- ~ *Tensor flow installation 1.6 with virtual environment.*
- ~ *Tensor flow 2.0 function.*
- ~ *Tensor flow 2.0 neural network creation.*
- ~ *Tensor flow 1.6 functions.*
- ~ *Tensor flow 1.6 neural network and its functions.*
- ~ *Keras introduction.*
- ~ *Keras in-depth with neural network creation.*
- ~ *Mini project in tensorflow.*
- ~ *Tensorspace*
- ~ *Tensorboard integration*
- ~ *Tensorflow playground*
- ~ *Netron*

=> Pytorch :

- ~ *pytorch installation.*
- ~ *Pytorch functional overview.*
- ~ *Pytorch neural network creation.*

=> Mxnet :

- ~ *Mxnet installation*
- ~ *Mxnet in depth function overview*
- ~ *Mxnet model creation and training*

=> Keras Tuner :

- ~ *Keras tuner installation and overview*
- ~ *Finding best parameter from keras tuner*
- ~ *Keras tuner application across various neural network*

=> CNN Overview :

- ~ *Cnn definition*
- ~ *Various cnn based architecture*
- ~ *Explanation end to end cnn network*
- ~ *Cnn explainer*
- ~ *Training cnn*
- ~ *Deployment in azure cloud*
- ~ *Performance tuning of cnn network*

=> Advance Computer Vision - Part 1 :

- ~ *Various cnn architecture with research paper and mathematics*
- ~ *Lenet-5 variants with research paper and practical*
- ~ *Alexnet variants with research paper and practical*
- ~ *Googlenet variants with research paper and practical*
- ~ *Transfer learning*
- ~ *Vggnet variants with research paper and practical*
- ~ *Resnet variants with research paper and practical*
- ~ *Inception net variants with research paper and practical*
- ~ *Darknet variants with research paper and practical*

=> Advance Computer Vision - Part 2 :

- ~ *Object detection in-depth*
- ~ *Transfer learning*
- ~ *Rcnn with research paper and practical*
- ~ *Fast rcnn with research paper and practical*
- ~ *Faster r cnn with research paper and practical*
- ~ *Ssd with research paper and practical*
- ~ *Ssd lite with research paper and practical*

=> Training of Custom Object Detection :

- ~ *Tfod introduction*
- ~ *Environment setup with tfod*
- ~ *Gpu vs tpu vs cpu*
- ~ *Various gpu comparison*

=> Advance Computer Vision - Part 3 :

- ~ *Yolo v1 with research paper and practical*
- ~ *Yolo v2 with research paper and practical*
- ~ *Yolo v3 with research paper and practical*
- ~ *Yolo v4 with research paper and practical*
- ~ *Yolo v5 with research paper and practical*
- ~ *Retina net*
- ~ *Face net*
- ~ *Detectron2 with practical and live testing*

=> Object Segmentation :

- ~ *Semantic segmentation*
- ~ *Panoptic segmentation*
- ~ *Masked rcnn*
- ~ *Practical with detectron*
- ~ *Practical with tfod*

=> Object Tracking :

- ~ *Detail of object tracking*
- ~ *Kalman filtering*
- ~ *Sort*
- ~ *Deep sort*
- ~ *Object tracking live project with live camera testing*

=> OCR :

- ~ *Introduction to ocr*
- ~ *Various framework and api for ocr*
- ~ *Practical implementation of ocr*
- ~ *Live project deployment for bill parsing*

=> Image Captioning :

- ~ *Image captioning overview*
- ~ *Image captioning project with deployment*

=> Tensorflow JS :

- ~ *Tensorflow js overview*
- ~ *Tfjs implementation*

=> Model Conversion :

- ~ *Tfjs*
- ~ *Tflite*
- ~ *Tfrt*
- ~ *Torch to tf model*
- ~ *Mxnet to tf conversion*

=> Advance NLP with Deep Learning :

- ~ *Overview computational linguistic.*
- ~ *History of nlp.*
- ~ *Why nlp*
- ~ *Use of nlp*

=> Text Processing Importing Text :

- ~ *Web scrapping.*
- ~ *Text processing*
- ~ *Understanding regex.*
- ~ *Text normalization*
- ~ *Word count.*

- ~ Frequency distribution.
- ~ Text annotation.
- ~ Use of annotator.
- ~ String tokenization
- ~ Annotator creation.
- ~ Sentence processing.
- ~ Lemmatization in text processing
- ~ Pos
- ~ Named entity recognition
- ~ Dependency parsing in text.
- ~ Sentimental analysis

=> Spacy :

- ~ Spacy overview.
- ~ Spacy function
- ~ Spacy function implementation in text processing.
- ~ Pos tagging, challenges and accuracy.
- ~ Entities and named entry recognition
- ~ Interpolation, language models
- ~ Nltk
- ~ Text blob
- ~ Stanford nlp

=> RNN :

- ~ Recurrent neural networks.
- ~ Long short term memory (lstm)
- ~ Bi lstm.
- ~ Stacked lstm
- ~ Gru implementation.
- ~ Building a story writer using character level rnn.

=> Word Embedding :

- ~ Word embedding
- ~ Co-occurrence vectors
- ~ Word2vec
- ~ Doc2vec

=> Attention Based Model :

- ~ Seq 2 seq.
- ~ Encoders and decoders.
- ~ Attention mechanism.
- ~ Attention neural networks
- ~ Self-attention

=> Transfer Learning in NLP :

- ~ Introduction to transformers.
- ~ Bert model.
- ~ Elmo model.
- ~ Gpt1 model
- ~ Gpt2 model.
- ~ Albert model.
- ~ Distilbert model

=> Deployment of Model and Performance Tuning :

- ~ Deep learning model deployment strategies.
- ~ Deep learning project architecture
- ~ Deep learning model deployment phase.
- ~ Deep learning model retraining phase.
- ~ Deep learning model deployment in aws.
- ~ Deep learning model deployment in azure.
- ~ Deep learning model deployment in gcloud.

=> API for Speech and Vision :

- ~ AWS
- ~ Azure
- ~ GCP

=> Big Data Introduction :

- ~ What is big data?
- ~ Big data application
- ~ Big data pipeline

=> Hadoop :

- ~ Hadoop introduction
- ~ Hadoop setup and installation

=> Spark :

- ~ Spark
- ~ Spark overview.
- ~ Spark installation.
- ~ Spark rdd.
- ~ Spark data frame.
- ~ Spark architecture.
- ~ Spark ml lib
- ~ Spark NLP
- ~ Spark linear regression
- ~ Spark logistic regression
- ~ Spark decision tree
- ~ Spark naive bayes
- ~ Spark xg boost.
- ~ Spark time series
- ~ Spark deployment in local server

- ~ Spark job automation with
- ~ Scheduler

=> Kafka :

- ~ Kafka introduction
- ~ Kafka installation
- ~ Spark streaming
- ~ Spark with Kafka

=> ML Ops :

- ~ Jenkins
- ~ Kubernetes
- ~ Elasticsearch
- ~ Kibana
- ~ Git

=> SQL :

- ~ Introduction
- ~ ER Daigram
- ~ Schema Design
- ~ Normalization
- ~ SQL SELECT Statement
- ~ SQL SELECT Using common functions
- ~ SQL JOIN Overview
- ~ INNER JOIN
- ~ LEFT JOIN
- ~ RIGHT JOIN
- ~ FULL JOIN
- ~ SQL Best Practice
- ~ INNER JOIN - Advanced
- ~ INNER JOIN & LEFT JOIN Combo
- ~ SELF JOIN
- ~ Joins & Aggregation - Subqueries
- ~ Sorting
- ~ Independent Subqueries
- ~ Correlated Subqueries
- ~ Analytic Function
- ~ Set Operations
- ~ SQL Views
- ~ Create a view
- ~ Create a view using DDL
- ~ SQL Insert - Advanced Technique
- ~ INSERT to create a table
- ~ INSERT new data to an existing table-1
- ~ INSERT new data to an existing table-2
- ~ INSERT new data to an existing table-3
- ~ INSERT new data to an existing table-4
- ~ SQL Update - Advanced Technique and TCL
- ~ SQL DELETE and TCL
- ~ SQL Constraints
- ~ SQL Aggregations
- ~ SQL Programmability
- ~ SQL Query Performance
- ~ SQL Xtras

=> Advance Excel :

- ~ Microsoft Excel Fundamentals
- ~ Entering and Editing Text and Formulas
- ~ Working with Basic Excel Functions
- ~ Modifying an Excel Worksheet
- ~ Formatting Data in an Excel Worksheet
- ~ Inserting Images and Shapes into an Excel Worksheet
- ~ Creating Basic Charts in Excel
- ~ Printing an Excel Worksheet
- ~ Working with Excel Templates
- ~ Working with an Excel List
- ~ Excel List Functions
- ~ Excel Data Validation
- ~ Importing and Exporting Data
- ~ Excel PivotTables
- ~ Working with Excel's PowerPivot Tools
- ~ Working with Large Sets of Excel Data
- ~ Conditional Functions
- ~ Lookup Functions
- ~ Text Based Functions
- ~ Auditing an Excel Worksheet
- ~ Protecting Excel Worksheets and Workbooks
- ~ Mastering Excel "What If?"Tools
- ~ Automating Repetitive Tasks in Excel with Macros
- ~ Macro Recorder Tool
- ~ Excel VBA Concepts
- ~ Advance VBA
- ~ Preparing and Cleaning Up Data with VBA
- ~ VBA to Automate Excel Formulas
- ~ Preparing Weekly Report
- ~ Working with Excel VBA User Forms
- ~ Importing Data from Text Files

=> Tableau :

- ~ Talking about Business Intelligence

- ~ Tools and Methodologies used in BI
- ~ Why Visualization is getting more popular
- ~ Why Tableau?
- ~ Gartner Magic Quadrant of Market Leaders
- ~ Future business impact of BI
- ~ Tableau Products
- ~ Tableau Architecture
- ~ BI Project Execution
- ~ Tableau Installation in local system
- ~ Introduction to Tableau Prep
- ~ Tableau Prep Builder User Interface
- ~ Data Preparation techniques using Tableau Prep Builder tool
- ~ How to connect Tableau with different data source
- ~ Visual Segments
- ~ Visual Analytics in depth
- ~ Filters, Parameters & Sets
- ~ Tableau Calculations using functions
- ~ Tableau Joins
- ~ Working with multiple data source (Data Blending)
- ~ Building Predictive Models
- ~ Dynamic Dashboards and Stories
- ~ Sharing your Reports
- ~ Tableau Server
- ~ User Security
- ~ Scheduling
- ~ PDF File
- ~ JSON File
- ~ Spatial File
- ~ Statistical File
- ~ Microsoft SQL Server
- ~ Salesforce
- ~ AWS
- ~ Azure
- ~ Google Analytics
- ~ R
- ~ Python
- ~ Hadoop
- ~ OneDrive
- ~ Microsoft Access
- ~ SAP HANA
- ~ SharePoint
- ~ Snowflake
- ~ Subject
- ~ Planning
- ~ Pen & Paper approach
- ~ Tools
- ~ Color theme
- ~ Shapes
- ~ Fonts
- ~ Image Selection
- ~ text position
- ~ visual placing
- ~ Story layout & design
- ~ Dashboard planning

=> Power BI :

- ~ Power BI introduction and overview
- ~ Key Benefits of Power BI
- ~ Power BI Architecture
- ~ Power BI Process
- ~ Components of Power BI
- ~ Power BI - Building Blocks
- ~ Power BI vs other BI tools
- ~ Power Installation
- ~ Overview of Power BI Desktop
- ~ Data Sources in Power BI Desktop
- ~ Connecting to a data Sources
- ~ Query Editor in Power BI
- ~ Views in Power BI
- ~ Field Pane
- ~ Visual Pane
- ~ Custom Visual Option
- ~ Filters
- ~ Introduction to using Excel data in Power BI
- ~ Exploring live connections to data with Power BI
- ~ Connecting directly to SQL Azure, HD Spark, SQL Server Analysis Services/ My SQL
- ~ Import Power View and Power Pivot to Power BI
- ~ Power BI Publisher for Excel
- ~ Content packs
- ~ Introducing Power BI Mobile
- ~ Power Query Introduction
- ~ Query Editor Interface
- ~ Clean and Transform your data with Query Editor
- ~ Data Type
- ~ Column Transformations vs Adding Columns
- ~ Text Transformations
- ~ Cleaning irregularly formatted data -Transpose
- ~ Date and Time Calculations
- ~ Advance editor: Use Case

- ~ Query Level Parameters
- ~ Combining Data Merging and Appending
- ~ Data Modelling
- ~ Calculated Columns
- ~ Measures/New Quick Measures
- ~ Calculated Tables
- ~ Optimizing Data Models
- ~ Row Context vs Set Context
- ~ Cross Filter Direction
- ~ Manage Data Relationship
- ~ Why is DAX important?
- ~ Advanced calculations using Calculate functions
- ~ DAX queries
- ~ DAX Parameter Naming
- ~ Time Intelligence Functions
- ~ Types of visualization in a Power BI report
- ~ Custom visualization to a Power BI report
- ~ Matrixes and tables
- ~ Getting started with color formatting and axis properties
- ~ Change how a chart is sorted in a Power BI report
- ~ Move, resize, and pop out a visualization in a Power BI report
- ~ Drill down in a visualization in Power BI

=> GPT-3

=> GAN

=> Reinforcement Learning

Project details :-

=> Python Project :

- ~ Weeding script
- ~ Image resizing
- ~ Jupyter notebook merging, reading etc.
- ~ Sending emails
- ~ Weather app
- ~ Memes generator
- ~ Food log app
- ~ Web scrapping
- ~ Web crawlers for image data sentiment analysis and product review sentiment analysis.
- ~ Integration with web portal.
- ~ Integration with rest api, web portal and mongo db. on azure
- ~ Deployment on web portal on azure.
- ~ Text mining
- ~ Social media data churn
- ~ Mass copy, paste

=> Chatbot Projects :

- ~ Chatbot using Microsoft Luis
- ~ Chatbot using google dialog flow
- ~ Chatbot using amazon lex
- ~ Chatbot using rasa nlu
- ~ Deployment of Chabot with web , telegram , WhatsApp, skype

=> Major Projects :

- ~ Healthcare analytics prediction of medicines based on Fitbit band.
- ~ Revenue forecasting for startups.
- ~ Prediction of order cancellation at the time of ordering inventories.
- ~ anomaly detection in inventory packaged material.
- ~ Fault detection in wafers based on sensor data.
- ~ Demand forecasting for fmcg product.
- ~ Threat identification in security system.
- ~ Defect detection in vehicle engine.
- ~ Food price forecasting with zomato dataset.
- ~ Fault detection in wafers based on sensor data.
- ~ Cement strength reg.
- ~ Credit card fraud.
- ~ Forest cover classification.
- ~ Fraud detection.
- ~ Income prediction.
- ~ Mushroom classifier.
- ~ phishing classifier
- ~ Thyroid detection.
- ~ Visibility climate

=> Computer Vision Project :

- ~ Traffic surveillance system.
- ~ Object identification.
- ~ Object tracking.
- ~ Object classification.
- ~ Tensorflow object detection.
- ~ Image to text processing.
- ~ Speech to speech analysis.
- ~ Vision based attendance system

=> Mini NLP Project :

- ~ Machine translation.
- ~ Abstractive text summarization.
- ~ Keyword spotting.
- ~ Language modelling.

~ Document summarization

=> NLP Transfer Learning Project :

- ~ Deployment and integration with UI machine translation.
- ~ Question answering (like chat bot)
- ~ Sentiment analysis imdb.
- ~ Text search (with synonyms).
- ~ Text classifications.
- ~ Spelling corrector.
- ~ Entity (person, place or brand) recognition.
- ~ Text summarization.
- ~ Text similarity (paraphrase).
- ~ Topic detection.
- ~ Language identification.
- ~ Document ranking.
- ~ Fake news detection
- ~ Plagiarism checker
- ~ Text summarization extractive
- ~ Text summarization abstractive.

=> NLP End to End Project with Architecture and Deployment :

- ~ Movie review using bert
- ~ NER using Bert
- ~ Pos bert
- ~ Text generation gpt 2
- ~ Text summarization xlnet
- ~ Abstract bert
- ~ Machine translation
- ~ Nlp text summarization custom
- ~ Keras/tensorflow
- ~ Language identification
- ~ Text classification using fast bert
- ~ Neuralcore
- ~ Detecting fake text using gltr with bert and gpt2
- ~ Fake news detector using gpt2
- ~ Python plagiarism checker type a message
- ~ Question answering

=> NLP Project End to End with Deployment in Various Cloud and UI Integration :

- ~ Topic modeling.
- ~ Word sense disambiguation
- ~ Text to speech
- ~ Keyword spotting
- ~ Document ranking
- ~ Text search (with synonyms)
- ~ Language modeling
- ~ Spam detector
- ~ Image captioning

=> SQL Project :

- ~ Ecommerce Analysis - Tableau Integration
- ~ Sales Data Analysis - Tableau Integration

=> Tableau Project :

- ~ Human Resource - Tableau
- ~ Supply Chain - Tableau
- ~ Sale Return - Tableau
- ~ E-Commerce Customer Analysis
- ~ Project Management Dashbaord
- ~ Sales Dashboard

=> Power BI Project :

- ~ Cost Insights - Power BI
- ~ Management Insights- Power BI
- ~ Retail Insights- Power BI

Complete iOS 16 Developer with Swift and 8 Apps

Topic Name : MOBILE DEVELOPEMENT

Sub-topic Name : IOS

Course link : <https://ineuron.ai/course/Complete-iOS-16-Developer-with-Swift-and-8-Apps>

Course Description :-

Learn iOS development with SwiftUI and building a lot of apps.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Introduction to iOS development
- => Xcode
- => Operators and Range in Swift
- => String and interpolation
- => Array and methods in Array in swift
- => Dictionary in depth in swift
- => Sets in swift programming
- => Tuples in swift
- => Structs in swift
- => Structs Vs Class
- => Building Project 1 - Profile app
- => Project 2 - Custom shape and slots
- => Project 3 - Calculator with animation
- => Project 4 Splash screen
- => Project 5 - Shopping app with multi screen

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

- => Introduction to iOS development :
 - ~ Introduction to iOS development and prerequisites
 - ~ A tour of XCode
 - ~ Hello world in Swift
 - ~ A bit of history of swift with Objective C
- => Getting started with swift :
 - ~ Variables and Constants in Swift
 - ~ Operators and Range in Swift
 - ~ String and interpolation
 - ~ Methods in Strings
 - ~ A caution in type conversion
 - ~ Can user pay Logical Operators
 - ~ Optional binding and forced unwrapping
 - ~ We missed reading the docs
- => More datatypes in swift :
 - ~ Array and methods in Array in swift

- ~ Dictionary in depth in swift
- ~ Sets in swift programming
- ~ Tuples in swift

=> Going all indepth of swift :

- ~ if else and optional unwrapping
- ~ Control flow statements
- ~ Functions in swift programming
- ~ Indepth of Closure 2C autoclosure and escaping
- ~ Enums and indirect enums
- ~ Structs in swift
- ~ Structs Vs Class
- ~ Classes and reference type
- ~ Properties in swift
- ~ Methods in swift

=> Advance swift programming concept :

- ~ Inheritance in swift
- ~ init in depth in swift
- ~ Deinit in swift
- ~ Error handling in swift
- ~ Protocols in swift

=> Building Project 1 - Profile app :

- ~ Zstack 2C HStack and VStack
- ~ Create a new app in XCode
- ~ Getting started with Zstack and VStack
- ~ Moving into VStack
- ~ Nested Stacks in swift UI
- ~ Finishing our first app

=> Project 2 - Custom shape and slots :

- ~ Theory behind custom shapes in iOS
- ~ From figma to XCode shape
- ~ State 2C rawValue and Identifiable
- ~ More on State and HStack
- ~ Getting button in our app
- ~ Finishing up slot machine game

=> Project 3 - Calculator with animation :

- ~ RawValue in swift
- ~ Starting a calculator project - assets
- ~ Defining Model for calculator
- ~ Getting keys sorted out for calculator
- ~ Animation in swift ui
- ~ Adding buttons for calculator
- ~ Learn to calculate element width and height
- ~ Loading up views on home screen
- ~ Finishing up the calculator logic part

=> Project 4 Splash screen :

- ~ Getting started with Splash screen
- ~ Finishing up a splash screen

=> Project 5 - Shopping app with multi screen :

- ~ Demo of Shopping app with Navigation
- ~ Importing all assets of fruits
- ~ Building on boarding screen with navigation
- ~ Models for fruit and near you
- ~ Handling the fruit card
- ~ Horizontal scroll view
- ~ Passing value from one screen to another
- ~ Design detail view part 1
- ~ Counter in detail screen
- ~ Vertical scroll view
- ~ Assemble fruit cart app
- ~ Resolving minor UI issue

=> Project 6 - Building LinkedIn UI clone :

- ~ What we will build - LinkedIn
- ~ Search bar component
- ~ Models in linkedin UI
- ~ Each connection request
- ~ Building my Network screen
- ~ Making home cards
- ~ Home screen top view
- ~ Building Home Screen
- ~ Launch linkedin UI in simulator

=> Project 7 - Todo App - Read the docs :

- ~ What are user defaults
- ~ What is Codable protocol
- ~ Model with Identifiable and Codable
- ~ What are ObservableObject and Published
- ~ UserDefaults with unique key
- ~ Get values from UserDefaults
- ~ CRUD operations in Todo list
- ~ DispatchQueue in depth
- ~ Navigation View and Link
- ~ State management in swift ui
- ~ Take user input and add it to Model

- ~ Adding Todo 27s on Home screen
- ~ Finishing up todo app with gesture implementation

=> Project 8 - Handling API and building pokemon app :

- ~ What is API and formatting
- ~ Create a model for API response
- ~ Fetching data from API endpoint
- ~ List and async calls
- ~ Kingfisher - Third party packages
- ~ Install third party packages
- ~ What are extensions in swift
- ~ Issues in Data and API call
- ~ Creating a data extension
- ~ Using KFIImage
- ~ Gridviews and LazyVStack
- ~ Debugging the pokemon app

Full Stack Data Science Feb'21 Batch

Topic Name : DATA SCIENCE

Sub-topic Name : FULL STACK DATA SCIENCE

Course link : <https://ineuron.ai/course/Full-Stack-Data-Science-Feb'21-Batch>

Course Description :-

This is a data science full stack live mentor led certification program along with full time one-year internship provided by iNeuron intelligence private limited, where you will learn all the stack required to work in data science, data analytics and big data industry including ML ops and cloud infrastructure and real time industry project and product development along with iNeuron product development team and you will contribute on various level with iNeuron .

Course Features :-

- => Full stack Data Science masters certification
- => Job guarantee otherwise refund
- => One year of internship
- => Online Instructor-led learning: Live teaching by instructors
- => 56 + hands-on industry real-time projects.
- => 400 hours live interactive classes.
- => Every week doubt clearing session after the live classes.
- => Lifetime Dashboard access.
- => Doubt clearing one to one
- => Doubt clearing through mail and skype support team
- => Assignment in all the module
- => Quiz in every module
- => A live project with real-time implementation
- => Resume building
- => Career guidance
- => Interview Preparation
- => Regular assessment

What you will learn :-

- => Python
- => Stats
- => Machine learning
- => Deep learning
- => Computer vision
- => Natural language processing
- => Data analytics
- => Big data
- => ML ops
- => Cloud
- => Data structure and algorithm
- => Architecture
- => Domain wise project
- => Databases
- => Negotiations skills
- => Mock interview
- => Interview preparation
- => Resume building after every module

Requirements :-

- => Dedication
- => Computer with i3 and above configuration

Instructors :-

=> Sunny Bhaveen Chandra :

~ Sr. Data Scientist and lecturer at iNeuron.ai with working experience in computer vision, natural language processing and embedded systems. Hands-on experience leveraging machine learning, deep learning, transfer learning models to solve challenging business problems. Also, he has a vast interest in Robotics.

=> krish naik :

~ Having 10+ years of experience in Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

=> Sudhanshu Kumar :

~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

=> Course introduction :

- ~ a. course overview and dashboard description
- ~ b. Introduction of data science and its application in day to day life
- ~ c. Programming language overview
- ~ d. Installation (tools: sublime, vscode, pycharm, anaconda, atom, jupyter notebook, kite)
- ~ e. Virtual environment
- ~ f. Why python

=> Python basic :

- ~ a. Introduction of python and comparison with other programming language
- ~ b. Installation of anaconda distribution and other python ide
- ~ c. Python objects, number & Booleans, strings.
- ~ d. Container objects, mutability of objects
- ~ e. Operators - arithmetic, bitwise, comparison and assignment operators, operators precedence and associativity
- ~ f. Conditions (if else, if-elif-else), loops (while, for)
- ~ g. Break and continue statement and range function

=> String objects :

- ~ a. basic data structure in python
- ~ b. String object basics
- ~ c. String inbuilt methods
- ~ d. Splitting and joining strings
- ~ e. String format functions

=> List object basics :

- ~ a. List methods
- ~ b. List as stack and queues
- ~ c. List comprehensions

=> Tuples, set, dictionaries & its function :

- ~ Dictionary object methods
- ~ Dictionary comprehensions
- ~ Dictionary view objects
- ~ Functions basics, parameter passing, iterators.
- ~ Generator functions
- ~ Lambda functions
- ~ Map, reduce, filter functions.

=> Memory management :

- ~ Multithreading
- ~ Multiprocessing

=> OOps concepts :

- ~ oops basic concepts.
- ~ Creating classes
- ~ Pillars of oops
- ~ Inheritance
- ~ Polymorphism
- ~ Encapsulation
- ~ Abstraction
- ~ Decorator
- ~ Class methods and static methods
- ~ Special (magic/dunder) methods
- ~ Property decorators - getters, setters, and deletes

=> Files :

- ~ Working with files
- ~ Reading and writing files
- ~ Buffered read and write
- ~ Other file methods.
- ~ Logging, debugger
- ~ Modules and import statements

=> Exception handling difference between exceptions and error :

- ~ Exceptions handling with try-except
- ~ Custom exception handling
- ~ List of general use exception
- ~ Best practice exception handling

=> Gui framework :

- ~ What is desktop and standalone application
- ~ Use of desktop app
- ~ Examples of desktop app
- ~ Tinker
- ~ Kivy

=> Database :

- ~ SQLite
- ~ MySQL
- ~ Mongo dB
- ~ NoSQL - Cassandra

=> Web API :

- ~ What is web API
- ~ Difference b/w API and web API
- ~ Rest and soap architecture
- ~ Restful services

=> Flask :

- ~ Flask introduction
- ~ Flask application
- ~ Open link flask
- ~ App routing flask
- ~ Url building flask
- ~ Http methods flask
- ~ Templates flask
- ~ Flask project: food app
- ~ Postman
- ~ Swagger

=> Django :

- ~ Django introduction
- ~ Django project: weather app
- ~ Django project: memes generator
- ~ Django project: blog app
- ~ Django project in cloud

=> Stream lit :

- ~ Stream lit introduction
- ~ Stream lit project structure
- ~ Stream lit project in cloud

=> Pandas basic :

- ~ Python pandas - series
- ~ Python pandas data frame
- ~ Python pandas panel
- ~ Python pandas - basic functionality
- ~ Reading data from different file system

=> Pandas advance :

- ~ Python pandas re indexing python
- ~ Pandas iteration
- ~ Python pandas sorting.
- ~ Working with text data options & customization
- ~ Indexing & selecting
- ~ Data statistical functions
- ~ Python pandas - window functions
- ~ Python pandas - date functionality
- ~ Python pandas time delta
- ~ Python pandas - categorical data
- ~ Python pandas visualization
- ~ Python pandas - iotools

=> Dask :

- ~ Dask Array
- ~ Dask Bag
- ~ Dask DataFrame
- ~ Dask Delayed
- ~ Dask Futures
- ~ Dask API
- ~ Dask SCHEDULING
- ~ Dask Understanding Performance
- ~ Dask Visualize task graphs
- ~ Dask Diagnostics (local)
- ~ Dask Diagnostics (distributed)
- ~ Dask Debugging
- ~ Dask Ordering

=> Python numpy :

- ~ Numpy - ND array object.
- ~ Numpy - data types.
- ~ Numpy - array attributes.
- ~ Numpy - array creation routines.
- ~ Numpy - array from existing.
- ~ Data array from numerical ranges.
- ~ Numpy - indexing & slicing.
- ~ Numpy advanced indexing.
- ~ Numpy broadcasting.
- ~ Numpy - iterating over array.
- ~ Numpy - array manipulation.
- ~ Numpy - binary operators.
- ~ Numpy - string functions.
- ~ Numpy - mathematical functions.
- ~ Numpy - arithmetic operations.
- ~ Numpy - statistical functions.
- ~ Sort, search & counting functions.

- ~ *Numpy - byte swapping.*
- ~ *Numpy - copies & views.*
- ~ *Numpy - matrix library.*
- ~ *Numpy - linear algebra*

=> Visualization :

- ~ *Matplotlib*
- ~ *Seaborn*
- ~ *Cufflinks*
- ~ *Plotly*
- ~ *Bokeh*

=> Statistics basic :

- ~ *Introduction to basic statistics terms*
- ~ *Types of statistics*
- ~ *Types of data*
- ~ *Levels of measurement*
- ~ *Measures of central tendency*
- ~ *Measures of dispersion*
- ~ *Random variables*
- ~ *Set*
- ~ *Skewness*
- ~ *Covariance and correlation*

=> Probability distribution function :

- ~ *Probability density/distribution function*
- ~ *Types of the probability distribution*
- ~ *Binomial distribution*
- ~ *Poisson distribution*
- ~ *Normal distribution (Gaussian distribution)*
- ~ *Probability density function and mass function*
- ~ *Cumulative density function*
- ~ *Examples of normal distribution*
- ~ *Bernoulli distribution*
- ~ *Uniform distribution*
- ~ *Z stats*
- ~ *Central limit theorem*
- ~ *Estimation*

=> Statistics advance :

- ~ *a Hypothesis*
- ~ *Hypothesis testings mechanism*
- ~ *P-value*
- ~ *T-stats*
- ~ *Student t distribution*
- ~ *T-stats vs. Z-stats: overview*
- ~ *When to use a t-tests vs. Z-tests*
- ~ *Type 1 & type 2 error*
- ~ *Bayes statistics (Bayes theorem)*
- ~ *Confidence interval(ci)*
- ~ *Confidence intervals and the margin of error*
- ~ *Interpreting confidence levels and confidence intervals*
- ~ *Chi-square test*
- ~ *Chi-square distribution using python*
- ~ *Chi-square for goodness of fit test*
- ~ *When to use which statistical distribution?*
- ~ *Analysis of variance (anova)*
- ~ *Assumptions to use anova*
- ~ *Anova three type*
- ~ *Partitioning of variance in the anova*
- ~ *Calculating using python*
- ~ *F-distribution*
- ~ *F-test (variance ratio test)*
- ~ *Determining the values of f*
- ~ *F distribution using python*

=> Linear algebra :

- ~ *linear algebra*
- ~ *Vector*
- ~ *Scaler*
- ~ *Matrix*
- ~ *Matrix operations and manipulations*
- ~ *Dot product of two vectors*
- ~ *Transpose of a matrix*
- ~ *Linear independence of vectors*
- ~ *Rank of a matrix*
- ~ *Identity matrix or operator*
- ~ *Determinant of a matrix*
- ~ *Inverse of a matrix*
- ~ *Norm of a vector*
- ~ *Eigenvalues and eigenvectors*
- ~ *Calculus*

=> Solving stats problem with python

=> Stats problem implementation with spicy

=> Introduction to machine learning :

- ~ *AI vs ml vs dl vs ds*
- ~ *Supervised, unsupervised, semi-supervised, reinforcement learning*
- ~ *Train, test, validation split*

- ~ Performance
- ~ Overfitting, under fitting
- ~ Bias vs variance

=> Feature engineering :

- ~ Handling missing data
- ~ Handling imbalanced data
- ~ Up-sampling
- ~ Down-sampling
- ~ Smote
- ~ Data interpolation
- ~ Handling outliers
- ~ Filter method
- ~ Wrapper method
- ~ Embedded methods
- ~ Feature scaling
- ~ Standardization
- ~ Mean normalization
- ~ Min-max scaling
- ~ Unit vector
- ~ Feature extraction
- ~ Pca (principle component analysis)
- ~ Data encoding
- ~ Nominal encoding
- ~ One hot encoding
- ~ One hot encoding with multiple categories
- ~ Mean encoding
- ~ Ordinal encoding
- ~ Label encoding
- ~ Target guided ordinal encoding
- ~ Covariance
- ~ Correlation check
- ~ Pearson correlation coefficient
- ~ Spearmans rank correlation
- ~ Vif

=> Feature selection :

- ~ Feature selection
- ~ Recursive feature elimination
- ~ Backward elimination
- ~ Forward elimination

=> Exploratory data analysis :

- ~ Feature engineering and selection.
- ~ Analyzing bike sharing trends.
- ~ Analyzing movie reviews sentiment.
- ~ Customer segmentation and effective cross selling.
- ~ Analyzing wine types and quality.
- ~ Analyzing music trends and recommendations.
- ~ Forecasting stock and commodity prices

=> Regression :

- ~ Linear regression
- ~ Gradient descent
- ~ Multiple linear regression
- ~ Polynomial regression
- ~ R square and adjusted r square
- ~ Rmse , mse, mae comparison
- ~ Regularized linear models
- ~ Ridge regression
- ~ Lasso regression
- ~ Elastic net
- ~ Complete end-to-end project with deployment on cloud and ui

=> Logistics regression :

- ~ Logistics regression in-depth intuition
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Hyper parameter tuning
- ~ Grid search cv
- ~ Randomize search cv
- ~ Data leakage
- ~ Confusion matrix
- ~ Precision, recall, f1 score ,roc, auc
- ~ Best metric selection
- ~ Multiclass classification in lr
- ~ Complete end-to-end project with deployment in multi cloud platform

=> Decision tree :

- ~ Decision tree classifier
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Confusion matrix
- ~ Precision, recall, f1 score ,roc, auc
- ~ Best metric selection
- ~ Decision tree repressor
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Performance metrics
- ~ Complete end-to-end project with deployment in multi cloud platform

=> Support vector machines :

- ~ Linear svm classification
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Soft margin classification
- ~ Nonlinear svm classification
- ~ Polynomial kernel
- ~ Gaussian, rbf kernel
- ~ Data leakage
- ~ Confusion matrix
- ~ precision, recall, f1 score, roc, auc
- ~ Best metric selection
- ~ Svm regression
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Complete end-to-end project with deployment

=> Nave Bayes :

- ~ Bayes theorem
- ~ Multinomial nave Bayes
- ~ Gaussian nave Bayes
- ~ Various type of Bayes theorem and its intuition
- ~ Confusion matrix
- ~ precision, recall, f1 score, roc, auc
- ~ Best metric selection
- ~ Complete end-to-end project with deployment

=> Ensemble techniques and its types :

- ~ Definition of ensemble techniques
- ~ Bagging technique
- ~ Bootstrap aggregation
- ~ Random forest (bagging technique)
- ~ Random forest repressor
- ~ Random forest classifier
- ~ Complete end-to-end project with deployment

=> Boosting :

- ~ Boosting technique
- ~ Ada boost
- ~ Gradient boost
- ~ Xgboost
- ~ Complete end-to-end project with deployment

=> Stacking :

- ~ Stacking technique
- ~ Complete end-to-end project with deployment

=> Knn :

- ~ Knn classifier
- ~ Knn repressor
- ~ Variants of knn
- ~ Brute force knn
- ~ K-dimension tree
- ~ Ball tree
- ~ Complete end-to-end project with deployment

=> Dimensionality reduction :

- ~ The curse of dimensionality
- ~ Dimensionality reduction technique
- ~ Pca (principle component analysis)
- ~ Mathematics behind pca
- ~ Scree plots
- ~ Eigen-decomposition approach

=> Clustering :

- ~ Clustering and their types
- ~ K-means clustering
- ~ K-means++
- ~ Batch k-means
- ~ Hierarchical clustering
- ~ Dbscan
- ~ Evaluation of clustering
- ~ Homogeneity, completeness and v-measure
- ~ Silhouette coefficient
- ~ Davies-bouldin index
- ~ Contingency matrix
- ~ Pair confusion matrix
- ~ Extrinsic measure
- ~ Intrinsic measure
- ~ Complete end-to-end project with deployment

=> Anomaly detection :

- ~ Anomaly detection types
- ~ Anomaly detection applications
- ~ Isolation forest anomaly detection algorithm
- ~ Density-based anomaly detection (local outlier factor) algorithm
- ~ Support vector machine anomaly detection algorithm
- ~ Dbscan algorithm for anomaly detection
- ~ Complete end-to-end project with deployment

=> Time-series :

- ~ What is a time series?
- ~ Old techniques
- ~ Arima
- ~ Acf and pacf
- ~ Time-dependent seasonal components.
- ~ Autoregressive (ar),
- ~ Moving average (ma) and mixed arma- modeler.
- ~ The random walk model.
- ~ Box-jenkins methodology.
- ~ Forecasts with arima and var models.
- ~ Dynamic models with time-shifted explanatory variables.
- ~ The koyck transformation.
- ~ Partial adjustment and adaptive expectation models.
- ~ Granger's causality tests.
- ~ Stationarity, unit roots and integration
- ~ Time series model performance
- ~ Various approach to solve time series problem
- ~ Complete end-to-end project with deployment
- ~ Prediction of nifty stock price and deployment

=> NLP basic :

- ~ Tokenization
- ~ Pos tags and chunking
- ~ Stop words
- ~ Stemming and lemmatization
- ~ Named entity recognition (ner)
- ~ Word vectorization (word embedding)
- ~ Tfidf
- ~ Complete end-to-end project with deployment

=> Machine learning pipeline :

- ~ Aws segmaker
- ~ Aure ml studio
- ~ Ml flow
- ~ Kube flow

=> Model retraining approach

=> Auto ML :

- ~ H2o
- ~ Pycaret
- ~ Auto sklearn
- ~ Auto time series
- ~ Auto viml
- ~ Auto gluon
- ~ Auto viz
- ~ Tpot
- ~ Auto neuro

=> Neural network a simple perception. :

- ~ Detail mathematical explanation
- ~ Neural network overview and its use case.
- ~ Various neural network architect overview.
- ~ Use case of neural network in nlp and computer vision.
- ~ Activation function -all name
- ~ Multilayer network.
- ~ Loss functions. - all 10
- ~ The learning mechanism.
- ~ Optimizers. - all 10
- ~ Forward and backward propagation.
- ~ Weight initialization technique
- ~ Vanishing gradient problem
- ~ Exploding gradient problem
- ~ Visualization of nn

=> Hardware setup GPU :

- ~ Gpu introduction.
- ~ Various type of gpu configuration.
- ~ Gpu provider and its pricing.
- ~ Paper space gpu setup.
- ~ Running model in gpu

=> Tensor flow installation environment setup for deep learning :

- ~ Colab pro setup
- ~ Tensor flow installation 2.0 .
- ~ Tensor flow installation 1.6 with virtual environment.
- ~ Tensor flow 2.0 function.
- ~ Tensor flow 2.0 neural network creation.
- ~ Tensor flow 1.6 functions.
- ~ Tensor flow 1.6 neural network and its functions.
- ~ Keras introduction.
- ~ Keras in-depth with neural network creation.
- ~ Mini project in tensorflow.
- ~ Tensorspace
- ~ Tensorboard integration
- ~ Tensorflow playground
- ~ Netron

=> Pytorch :

- ~ pytorch installation.
- ~ Pytorch functional overview.

~ *Pytorch neural network creation.*

=> **Mxnet :**

~ *Mxnet installation*
~ *Mxnet in depth function overview*
~ *Mxnet model creation and training*

=> **Keras tuner :**

~ *Keras tuner installation and overview*
~ *Finding best parameter from keras tuner*
~ *Keras tuner application across various neural network*

=> **Cnn overview :**

~ *Cnn definition*
~ *Various cnn based architecture*
~ *Explanation end to end cnn network*
~ *Cnn explainer*
~ *Training cnn*
~ *Deployment in azure cloud*
~ *Performance tuning of cnn network*

=> **Advance computer vision part 1 :**

~ *Various cnn architecture with research paper and mathematics*
~ *Lenet-5 variants with research paper and practical*
~ *Alexnet variants with research paper and practical*
~ *Googlenet variants with research paper and practical*
~ *Transfer learning*
~ *Vggnet variants with research paper and practical*
~ *Resnet variants with research paper and practical*
~ *Inception net variants with research paper and practical*
~ *Darknet variants with research paper and practical*

=> **Advance computer vision part 2 :**

~ *Object detection in-depth*
~ *Transfer learning*
~ *Rcnn with research paper and practical*
~ *Fast rcnn with research paper and practical*
~ *Faster r cnn with research paper and practical*
~ *Ssd with research paper and practical*
~ *Ssd lite with research paper and practical*

=> **Training of custom object detection :**

~ *Tfod introduction*
~ *Environment setup with tfod*
~ *Gpu vs tpu vs cpu*
~ *Various gpu comparison*

=> **Advance computer vision part 3 :**

~ *Yolo v1 with research paper and practical*
~ *Yolo v2 with research paper and practical*
~ *Yolo v3 with research paper and practical*
~ *Yolo v4 with research paper and practical*
~ *Yolo v5 with research paper and practical*
~ *Retina net*
~ *Face net*
~ *Detectron2 with practical and live testing*

=> **Object segmentation :**

~ *Semantic segmentation*
~ *Panoptic segmentation*
~ *Masked rcnn*
~ *Practical with detectron*
~ *Practical with tfod*

=> **Object tracking :**

~ *Detail of object tracking*
~ *Kalman filtering*
~ *Sort*
~ *Deep sort*
~ *Object tracking live project with live camera testing*

=> **OCR :**

~ *Introduction to ocr*
~ *Various framework and api for ocr*
~ *Practical implementation of ocr*

=> **Advance NLP with deep-learning :**

~ *Overview computational linguistic.*
~ *History of nlp.*
~ *Why nlp*
~ *Use of nlp*

=> **Text processing importing text. :**

~ *Web scrapping.*
~ *Text processing*
~ *Understanding regex.*
~ *Text normalization*
~ *Word count.*
~ *Frequency distribution.*
~ *Text annotation.*
~ *Use of annotator.*
~ *String tokenization*

- ~ *Annotator creation.*
- ~ *Sentence processing.*
- ~ *Lemmatization in text processing*
- ~ *Pos.*
- ~ *Named entity recognition*
- ~ *Dependency parsing in text.*
- ~ *Sentimental analysis*

=> **Spacy :**

- ~ *Spacy overview.*
- ~ *Spacy function*
- ~ *Spacy function implementation in text processing.*
- ~ *Pos tagging, challenges and accuracy.*
- ~ *Entities and named entry recognition*
- ~ *Interpolation, language models*
- ~ *Nltk*
- ~ *Text blob*
- ~ *Stanford nlp*

=> **RNN :**

- ~ *Recurrent neural networks.*
- ~ *Long short term memory (lstm)*
- ~ *Bi lstm.*
- ~ *Stacked lstm*
- ~ *Gru implementation.*
- ~ *Building a story writer using character level rnn.*

=> **Word embedding :**

- ~ *Word embedding*
- ~ *Co-occurrence vectors*
- ~ *Word2vec*
- ~ *Doc2vec*

=> **Attention based model :**

- ~ *Seq 2 seq.*
- ~ *Encoders and decoders.*
- ~ *Attention mechanism.*
- ~ *Attention neural networks*
- ~ *Self-attention*

=> **Transfer learning in nlp :**

- ~ *Introduction to transformers.*
- ~ *Bert model.*
- ~ *Elmo model.*
- ~ *Gpt1 model*
- ~ *Gpt2 model.*
- ~ *Albert model.*
- ~ *Distilbert model*

=> **Deployment of model and performance tuning :**

- ~ *Deep learning model deployment strategies.*
- ~ *Deep learning project architecture*
- ~ *Deep learning model deployment phase.*
- ~ *Deep learning model retraining phase.*
- ~ *Deep learning model deployment in aws.*
- ~ *Deep learning model deployment in azure.*
- ~ *Deep learning model deployment in gcloud.*

=> **Big data introduction :**

- ~ *What is big data?*
- ~ *Big data application*
- ~ *Big data pipeline*

=> **Hadoop :**

- ~ *Hadoop introduction*
- ~ *Hadoop setup and installation*

=> **Spark :**

- ~ *Spark*
- ~ *Spark overview.*
- ~ *Spark installation.*
- ~ *Spark rdd.*
- ~ *Spark data frame.*
- ~ *Spark architecture.*
- ~ *Spark ml lib*
- ~ *Spark NLP*
- ~ *Spark linear regression*
- ~ *Spark logistic regression*
- ~ *Spark decision tree*
- ~ *Spark naive bayes*
- ~ *Spark xg boost.*
- ~ *Spark time series*
- ~ *Spark deployment in local server*
- ~ *Spark job automation with*
- ~ *Scheduler*

=> **Kafka :**

- ~ *Kafka introduction*
- ~ *Kafka installation*
- ~ *Spark streaming*
- ~ *Spark with Kafka*

=> Tableau :

- ~ Talking about Business Intelligence
- ~ Tools and Methodologies used in BI
- ~ Why Visualization is getting more popular
- ~ Why Tableau?
- ~ Gartner Magic Quadrant of Market Leaders
- ~ Future business impact of BI
- ~ Tableau Products
- ~ Tableau Architecture
- ~ BI Project Execution
- ~ Tableau Installation in local system
- ~ Introduction to Tableau Prep
- ~ Tableau Prep Builder User Interface
- ~ Data Preparation techniques using Tableau Prep Builder tool
- ~ How to connect Tableau with different data source
- ~ Visual Segments
- ~ Visual Analytics in depth
- ~ Filters, Parameters & Sets
- ~ Tableau Calculations using functions
- ~ Tableau Joins
- ~ Working with multiple data source (Data Blending)
- ~ Building Predictive Models
- ~ Dynamic Dashboards and Stories
- ~ Sharing your Reports
- ~ Tableau Server
- ~ User Security
- ~ Scheduling

=> Power BI :

- ~ Power BI introduction and overview
- ~ Key Benefits of Power BI
- ~ Power BI Architecture
- ~ Power BI Process
- ~ Components of Power BI
- ~ Power BI - Building Blocks
- ~ Power BI vs other BI tools
- ~ Power Installation
- ~ Overview of Power BI Desktop
- ~ Data Sources in Power BI Desktop
- ~ Connecting to a data Sources
- ~ Query Editor in Power BI
- ~ Views in Power BI
- ~ Field Pane
- ~ Visual Pane
- ~ Custom Visual Option
- ~ Filters
- ~ Introduction to using Excel data in Power BI
- ~ Exploring live connections to data with Power BI
- ~ Connecting directly to SQL Azure, HD Spark, SQL Server Analysis Services/ My SQL
- ~ Import Power View and Power Pivot to Power BI
- ~ Power BI Publisher for Excel
- ~ Content packs
- ~ Introducing Power BI Mobile
- ~ Power Query Introduction
- ~ Query Editor Interface
- ~ Clean and Transform your data with Query Editor
- ~ Data Type
- ~ Column Transformations vs Adding Columns
- ~ Text Transformations
- ~ Cleaning irregularly formatted data -Transpose
- ~ Date and Time Calculations
- ~ Advance editor: Use Case
- ~ Query Level Parameters
- ~ Combining Data Merging and Appending
- ~ Data Modelling
- ~ Calculated Columns
- ~ Measures/New Quick Measures
- ~ Calculated Tables
- ~ Optimizing Data Models
- ~ Row Context vs Set Context
- ~ Cross Filter Direction
- ~ Manage Data Relationship
- ~ Why is DAX important?
- ~ Advanced calculations using Calculate functions
- ~ DAX queries

=> Reinforcement Learning

Project details :-

=> Python Project :

- ~ Weeding script
- ~ Image resizing
- ~ Jupyter notebook merging, reading etc.
- ~ Sending emails
- ~ Weather app
- ~ Memes generator
- ~ Food log app
- ~ Web scrapping

- ~ Web crawlers for image data sentiment analysis and product review sentiment analysis.
- ~ Integration with web portal.
- ~ Integration with rest api, web portal and mongo db. on azure
- ~ Deployment on web portal on azure.
- ~ Text mining
- ~ Social media data churn
- ~ Mass copy, paste

=> Chatbot projects :

- ~ Chatbot using Microsoft Luis
- ~ Chatbot using google dialog flow
- ~ Chatbot using amazon lex
- ~ Chatbot using rasa nlu
- ~ Deployment of Chabot with web , telegram , WhatsApp, skype

=> Major projects :

- ~ Healthcare analytics prediction of medicines based on Fitbit band.
- ~ Revenue forecasting for startups.
- ~ Prediction of order cancellation at the time of ordering inventories.
- ~ anomaly detection in inventory packaged material.
- ~ Fault detection in wafers based on sensor data.
- ~ Demand forecasting for fmcg product.
- ~ Threat identification in security system.
- ~ Defect detection in vehicle engine.
- ~ Food price forecasting with zomato dataset.
- ~ Fault detection in wafers based on sensor data.
- ~ Cement strength reg.
- ~ Credit card fraud.
- ~ Forest cover classification.
- ~ Fraud detection.
- ~ Income prediction.
- ~ Mushroom classifier.
- ~ phishing classifier
- ~ Thyroid detection.
- ~ Visibility climate

=> Computer vision project :

- ~ Traffic surveillance system.
- ~ Object identification.
- ~ Object tracking.
- ~ Object classification.
- ~ Tensorflow object detection.
- ~ Image to text processing.
- ~ Speech to speech analysis.
- ~ Vision based attendance system

=> Mini NLP project :

- ~ Machine translation.
- ~ Abstractive text summarization.
- ~ Keyword spotting.
- ~ Language modelling.
- ~ Document summarization

=> Nlp transfer learning project :

- ~ Deployment and integration with UI machine translation.
- ~ Question answering (like chat bot)
- ~ Sentiment analysis imdb.
- ~ Text search (with synonyms).
- ~ Text classifications.
- ~ Spelling corrector.
- ~ Entity (person, place or brand) recognition.
- ~ Text summarization.
- ~ Text similarity (paraphrase).
- ~ Topic detection.
- ~ Language identification.
- ~ Document ranking.
- ~ Fake news detection
- ~ Plagiarism checker
- ~ Text summarization extractive
- ~ Text summarization abstractive.

=> NLP end to end project with architecture and deployment :

- ~ Movie review using bert
- ~ Ner using bert
- ~ Pos bert
- ~ Text generation gpt 2
- ~ Text summarization xlnet
- ~ Abstract bert
- ~ Machine translation
- ~ Nlp text summarization custom
- ~ Keras/tensorflow
- ~ Language identification
- ~ Text classification using fast bert
- ~ Neuralcore
- ~ Detecting fake text using gltr with bert and gpt2
- ~ Fake news detector using gpt2
- ~ Python plagiarism checker type a message
- ~ Question answering

Full Stack Data Science Feb'21 Batch

Topic Name : DATA SCIENCE

Sub-topic Name : FULL STACK DATA SCIENCE

Course link : <https://ineuron.ai/course/Full-Stack-Data-Science-Feb'21-Batch>

Course Description :-

This is a data science full stack live mentor led certification program along with full time one-year internship provided by iNeuron intelligence private limited, where you will learn all the stack required to work in data science, data analytics and big data industry including ML ops and cloud infrastructure and real time industry project and product development along with iNeuron product development team and you will contribute on various level with iNeuron .

Course Features :-

- => Full stack Data Science masters certification
- => Job guarantee otherwise refund
- => One year of internship
- => Online Instructor-led learning: Live teaching by instructors
- => 56 + hands-on industry real-time projects.
- => 400 hours live interactive classes.
- => Every week doubt clearing session after the live classes.
- => Lifetime Dashboard access.
- => Doubt clearing one to one
- => Doubt clearing through mail and skype support team
- => Assignment in all the module
- => Quiz in every module
- => A live project with real-time implementation
- => Resume building
- => Career guidance
- => Interview Preparation
- => Regular assessment

What you will learn :-

- => Python
- => Stats
- => Machine learning
- => Deep learning
- => Computer vision
- => Natural language processing
- => Data analytics
- => Big data
- => ML ops
- => Cloud
- => Data structure and algorithm
- => Architecture
- => Domain wise project
- => Databases
- => Negotiations skills
- => Mock interview
- => Interview preparation
- => Resume building after every module

Requirements :-

- => Dedication
- => Computer with i3 and above configuration

Instructors :-

=> Sunny Bhaveen Chandra :

~ Sr. Data Scientist and lecturer at iNeuron.ai with working experience in computer vision, natural language processing and embedded systems. Hands-on experience leveraging machine learning, deep learning, transfer learning models to solve challenging business problems. Also, he has a vast interest in Robotics.

=> krish naik :

~ Having 10+ years of experience in Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

=> Sudhanshu Kumar :

~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

=> Course introduction :

- ~ a. course overview and dashboard description
- ~ b. Introduction of data science and its application in day to day life
- ~ c. Programming language overview
- ~ d. Installation (tools: sublime, vscode, pycharm, anaconda, atom, jupyter notebook, kite)
- ~ e. Virtual environment
- ~ f. Why python

=> Python basic :

- ~ a. Introduction of python and comparison with other programming language
- ~ b. Installation of anaconda distribution and other python ide
- ~ c. Python objects, number & Booleans, strings.
- ~ d. Container objects, mutability of objects
- ~ e. Operators - arithmetic, bitwise, comparison and assignment operators, operators precedence and associativity
- ~ f. Conditions (if else, if-elif-else), loops (while, for)
- ~ g. Break and continue statement and range function

=> String objects :

- ~ a. basic data structure in python
- ~ b. String object basics
- ~ c. String inbuilt methods
- ~ d. Splitting and joining strings
- ~ e. String format functions

=> List object basics :

- ~ a. List methods
- ~ b. List as stack and queues
- ~ c. List comprehensions

=> Tuples, set, dictionaries & its function :

- ~ Dictionary object methods
- ~ Dictionary comprehensions
- ~ Dictionary view objects
- ~ Functions basics, parameter passing, iterators.
- ~ Generator functions
- ~ Lambda functions
- ~ Map, reduce, filter functions.

=> Memory management :

- ~ Multithreading
- ~ Multiprocessing

=> OOps concepts :

- ~ oops basic concepts.
- ~ Creating classes
- ~ Pillars of oops
- ~ Inheritance
- ~ Polymorphism
- ~ Encapsulation
- ~ Abstraction
- ~ Decorator
- ~ Class methods and static methods
- ~ Special (magic/dunder) methods
- ~ Property decorators - getters, setters, and deletes

=> Files :

- ~ Working with files
- ~ Reading and writing files
- ~ Buffered read and write
- ~ Other file methods.
- ~ Logging, debugger
- ~ Modules and import statements

=> Exception handling difference between exceptions and error :

- ~ Exceptions handling with try-except
- ~ Custom exception handling
- ~ List of general use exception
- ~ Best practice exception handling

=> Gui framework :

- ~ What is desktop and standalone application
- ~ Use of desktop app
- ~ Examples of desktop app
- ~ Tinker
- ~ Kivy

=> Database :

- ~ SQLite
- ~ MySQL
- ~ Mongo dB
- ~ NoSQL - Cassandra

=> Web API :

- ~ What is web API
- ~ Difference b/w API and web API
- ~ Rest and soap architecture
- ~ Restful services

=> Flask :

- ~ Flask introduction
- ~ Flask application
- ~ Open link flask
- ~ App routing flask
- ~ Url building flask
- ~ Http methods flask
- ~ Templates flask
- ~ Flask project: food app
- ~ Postman
- ~ Swagger

=> Django :

- ~ Django introduction
- ~ Django project: weather app
- ~ Django project: memes generator
- ~ Django project: blog app
- ~ Django project in cloud

=> Stream lit :

- ~ Stream lit introduction
- ~ Stream lit project structure
- ~ Stream lit project in cloud

=> Pandas basic :

- ~ Python pandas - series
- ~ Python pandas data frame
- ~ Python pandas panel
- ~ Python pandas - basic functionality
- ~ Reading data from different file system

=> Pandas advance :

- ~ Python pandas re indexing python
- ~ Pandas iteration
- ~ Python pandas sorting.
- ~ Working with text data options & customization
- ~ Indexing & selecting
- ~ Data statistical functions
- ~ Python pandas - window functions
- ~ Python pandas - date functionality
- ~ Python pandas time delta
- ~ Python pandas - categorical data
- ~ Python pandas visualization
- ~ Python pandas - iotools

=> Dask :

- ~ Dask Array
- ~ Dask Bag
- ~ Dask DataFrame
- ~ Dask Delayed
- ~ Dask Futures
- ~ Dask API
- ~ Dask SCHEDULING
- ~ Dask Understanding Performance
- ~ Dask Visualize task graphs
- ~ Dask Diagnostics (local)
- ~ Dask Diagnostics (distributed)
- ~ Dask Debugging
- ~ Dask Ordering

=> Python numpy :

- ~ Numpy - ND array object.
- ~ Numpy - data types.
- ~ Numpy - array attributes.
- ~ Numpy - array creation routines.
- ~ Numpy - array from existing.
- ~ Data array from numerical ranges.
- ~ Numpy - indexing & slicing.
- ~ Numpy advanced indexing.
- ~ Numpy broadcasting.
- ~ Numpy - iterating over array.
- ~ Numpy - array manipulation.
- ~ Numpy - binary operators.
- ~ Numpy - string functions.
- ~ Numpy - mathematical functions.
- ~ Numpy - arithmetic operations.
- ~ Numpy - statistical functions.
- ~ Sort, search & counting functions.

- ~ Numpy - byte swapping.
- ~ Numpy - copies & views.
- ~ Numpy - matrix library.
- ~ Numpy - linear algebra

=> Visualization :

- ~ Matplotlib
- ~ Seaborn
- ~ Cufflinks
- ~ Plotly
- ~ Bokeh

=> Statistics basic :

- ~ Introduction to basic statistics terms
- ~ Types of statistics
- ~ Types of data
- ~ Levels of measurement
- ~ Measures of central tendency
- ~ Measures of dispersion
- ~ Random variables
- ~ Set
- ~ Skewness
- ~ Covariance and correlation

=> Probability distribution function :

- ~ Probability density/distribution function
- ~ Types of the probability distribution
- ~ Binomial distribution
- ~ Poisson distribution
- ~ Normal distribution (Gaussian distribution)
- ~ Probability density function and mass function
- ~ Cumulative density function
- ~ Examples of normal distribution
- ~ Bernoulli distribution
- ~ Uniform distribution
- ~ Z stats
- ~ Central limit theorem
- ~ Estimation

=> Statistics advance :

- ~ a Hypothesis
- ~ Hypothesis testings mechanism
- ~ P-value
- ~ T-stats
- ~ Student t distribution
- ~ T-stats vs. Z-stats: overview
- ~ When to use a t-tests vs. Z-tests
- ~ Type 1 & type 2 error
- ~ Bayes statistics (Bayes theorem)
- ~ Confidence interval(ci)
- ~ Confidence intervals and the margin of error
- ~ Interpreting confidence levels and confidence intervals
- ~ Chi-square test
- ~ Chi-square distribution using python
- ~ Chi-square for goodness of fit test
- ~ When to use which statistical distribution?
- ~ Analysis of variance (anova)
- ~ Assumptions to use anova
- ~ Anova three type
- ~ Partitioning of variance in the anova
- ~ Calculating using python
- ~ F-distribution
- ~ F-test (variance ratio test)
- ~ Determining the values of f
- ~ F distribution using python

=> Linear algebra :

- ~ linear algebra
- ~ Vector
- ~ Scaler
- ~ Matrix
- ~ Matrix operations and manipulations
- ~ Dot product of two vectors
- ~ Transpose of a matrix
- ~ Linear independence of vectors
- ~ Rank of a matrix
- ~ Identity matrix or operator
- ~ Determinant of a matrix
- ~ Inverse of a matrix
- ~ Norm of a vector
- ~ Eigenvalues and eigenvectors
- ~ Calculus

=> Solving stats problem with python

=> Stats problem implementation with spicy

=> Introduction to machine learning :

- ~ Ai vs ml vs dl vs ds
- ~ Supervised, unsupervised, semi-supervised, reinforcement learning
- ~ Train, test, validation split

- ~ Performance
- ~ Overfitting, under fitting
- ~ Bias vs variance

=> Feature engineering :

- ~ Handling missing data
- ~ Handling imbalanced data
- ~ Up-sampling
- ~ Down-sampling
- ~ Smote
- ~ Data interpolation
- ~ Handling outliers
- ~ Filter method
- ~ Wrapper method
- ~ Embedded methods
- ~ Feature scaling
- ~ Standardization
- ~ Mean normalization
- ~ Min-max scaling
- ~ Unit vector
- ~ Feature extraction
- ~ Pca (principle component analysis)
- ~ Data encoding
- ~ Nominal encoding
- ~ One hot encoding
- ~ One hot encoding with multiple categories
- ~ Mean encoding
- ~ Ordinal encoding
- ~ Label encoding
- ~ Target guided ordinal encoding
- ~ Covariance
- ~ Correlation check
- ~ Pearson correlation coefficient
- ~ Spearmans rank correlation
- ~ Vif

=> Feature selection :

- ~ Feature selection
- ~ Recursive feature elimination
- ~ Backward elimination
- ~ Forward elimination

=> Exploratory data analysis :

- ~ Feature engineering and selection.
- ~ Analyzing bike sharing trends.
- ~ Analyzing movie reviews sentiment.
- ~ Customer segmentation and effective cross selling.
- ~ Analyzing wine types and quality.
- ~ Analyzing music trends and recommendations.
- ~ Forecasting stock and commodity prices

=> Regression :

- ~ Linear regression
- ~ Gradient descent
- ~ Multiple linear regression
- ~ Polynomial regression
- ~ R square and adjusted r square
- ~ Rmse , mse, mae comparison
- ~ Regularized linear models
- ~ Ridge regression
- ~ Lasso regression
- ~ Elastic net
- ~ Complete end-to-end project with deployment on cloud and ui

=> Logistics regression :

- ~ Logistics regression in-depth intuition
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Hyper parameter tuning
- ~ Grid search cv
- ~ Randomize search cv
- ~ Data leakage
- ~ Confusion matrix
- ~ Precision, recall, f1 score ,roc, auc
- ~ Best metric selection
- ~ Multiclass classification in lr
- ~ Complete end-to-end project with deployment in multi cloud platform

=> Decision tree :

- ~ Decision tree classifier
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Confusion matrix
- ~ Precision, recall, f1 score ,roc, auc
- ~ Best metric selection
- ~ Decision tree repressor
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Performance metrics
- ~ Complete end-to-end project with deployment in multi cloud platform

=> Support vector machines :

- ~ Linear svm classification
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Soft margin classification
- ~ Nonlinear svm classification
- ~ Polynomial kernel
- ~ Gaussian, rbf kernel
- ~ Data leakage
- ~ Confusion matrix
- ~ precision, recall, f1 score, roc, auc
- ~ Best metric selection
- ~ Svm regression
- ~ In-depth mathematical intuition
- ~ In-depth geometrical intuition
- ~ Complete end-to-end project with deployment

=> Nave Bayes :

- ~ Bayes theorem
- ~ Multinomial nave Bayes
- ~ Gaussian nave Bayes
- ~ Various type of Bayes theorem and its intuition
- ~ Confusion matrix
- ~ precision, recall, f1 score, roc, auc
- ~ Best metric selection
- ~ Complete end-to-end project with deployment

=> Ensemble techniques and its types :

- ~ Definition of ensemble techniques
- ~ Bagging technique
- ~ Bootstrap aggregation
- ~ Random forest (bagging technique)
- ~ Random forest repressor
- ~ Random forest classifier
- ~ Complete end-to-end project with deployment

=> Boosting :

- ~ Boosting technique
- ~ Ada boost
- ~ Gradient boost
- ~ Xgboost
- ~ Complete end-to-end project with deployment

=> Stacking :

- ~ Stacking technique
- ~ Complete end-to-end project with deployment

=> Knn :

- ~ Knn classifier
- ~ Knn repressor
- ~ Variants of knn
- ~ Brute force knn
- ~ K-dimension tree
- ~ Ball tree
- ~ Complete end-to-end project with deployment

=> Dimensionality reduction :

- ~ The curse of dimensionality
- ~ Dimensionality reduction technique
- ~ Pca (principle component analysis)
- ~ Mathematics behind pca
- ~ Scree plots
- ~ Eigen-decomposition approach

=> Clustering :

- ~ Clustering and their types
- ~ K-means clustering
- ~ K-means++
- ~ Batch k-means
- ~ Hierarchical clustering
- ~ Dbscan
- ~ Evaluation of clustering
- ~ Homogeneity, completeness and v-measure
- ~ Silhouette coefficient
- ~ Davies-bouldin index
- ~ Contingency matrix
- ~ Pair confusion matrix
- ~ Extrinsic measure
- ~ Intrinsic measure
- ~ Complete end-to-end project with deployment

=> Anomaly detection :

- ~ Anomaly detection types
- ~ Anomaly detection applications
- ~ Isolation forest anomaly detection algorithm
- ~ Density-based anomaly detection (local outlier factor) algorithm
- ~ Support vector machine anomaly detection algorithm
- ~ Dbscan algorithm for anomaly detection
- ~ Complete end-to-end project with deployment

=> Time-series :

- ~ What is a time series?
- ~ Old techniques
- ~ Arima
- ~ Acf and pacf
- ~ Time-dependent seasonal components.
- ~ Autoregressive (ar),
- ~ Moving average (ma) and mixed arma- modeler.
- ~ The random walk model.
- ~ Box-jenkins methodology.
- ~ Forecasts with arima and var models.
- ~ Dynamic models with time-shifted explanatory variables.
- ~ The koyck transformation.
- ~ Partial adjustment and adaptive expectation models.
- ~ Granger's causality tests.
- ~ Stationarity, unit roots and integration
- ~ Time series model performance
- ~ Various approach to solve time series problem
- ~ Complete end-to-end project with deployment
- ~ Prediction of nifty stock price and deployment

=> NLP basic :

- ~ Tokenization
- ~ Pos tags and chunking
- ~ Stop words
- ~ Stemming and lemmatization
- ~ Named entity recognition (ner)
- ~ Word vectorization (word embedding)
- ~ Tfidf
- ~ Complete end-to-end project with deployment

=> Machine learning pipeline :

- ~ Aws segmaker
- ~ Aure ml studio
- ~ Ml flow
- ~ Kube flow

=> Model retraining approach

=> Auto ML :

- ~ H2o
- ~ Pycaret
- ~ Auto sklearn
- ~ Auto time series
- ~ Auto vml
- ~ Auto gluon
- ~ Auto viz
- ~ Tpot
- ~ Auto neuro

=> Neural network a simple perception. :

- ~ Detail mathematical explanation
- ~ Neural network overview and its use case.
- ~ Various neural network architect overview.
- ~ Use case of neural network in nlp and computer vision.
- ~ Activation function -all name
- ~ Multilayer network.
- ~ Loss functions. - all 10
- ~ The learning mechanism.
- ~ Optimizers. - all 10
- ~ Forward and backward propagation.
- ~ Weight initialization technique
- ~ Vanishing gradient problem
- ~ Exploding gradient problem
- ~ Visualization of nn

=> Hardware setup GPU :

- ~ Gpu introduction.
- ~ Various type of gpu configuration.
- ~ Gpu provider and its pricing.
- ~ Paper space gpu setup.
- ~ Running model in gpu

=> Tensor flow installation environment setup for deep learning :

- ~ Colab pro setup
- ~ Tensor flow installation 2.0 .
- ~ Tensor flow installation 1.6 with virtual environment.
- ~ Tensor flow 2.0 function.
- ~ Tensor flow 2.0 neural network creation.
- ~ Tensor flow 1.6 functions.
- ~ Tensor flow 1.6 neural network and its functions.
- ~ Keras introduction.
- ~ Keras in-depth with neural network creation.
- ~ Mini project in tensorflow.
- ~ Tensorspace
- ~ Tensorboard integration
- ~ Tensorflow playground
- ~ Netron

=> Pytorch :

- ~ pytorch installation.
- ~ Pytorch functional overview.

~ *Pytorch neural network creation.*

=> **Mxnet :**

~ *Mxnet installation*
~ *Mxnet in depth function overview*
~ *Mxnet model creation and training*

=> **Keras tuner :**

~ *Keras tuner installation and overview*
~ *Finding best parameter from keras tuner*
~ *Keras tuner application across various neural network*

=> **Cnn overview :**

~ *Cnn definition*
~ *Various cnn based architecture*
~ *Explanation end to end cnn network*
~ *Cnn explainer*
~ *Training cnn*
~ *Deployment in azure cloud*
~ *Performance tuning of cnn network*

=> **Advance computer vision part 1 :**

~ *Various cnn architecture with research paper and mathematics*
~ *Lenet-5 variants with research paper and practical*
~ *Alexnet variants with research paper and practical*
~ *Googlenet variants with research paper and practical*
~ *Transfer learning*
~ *Vggnet variants with research paper and practical*
~ *Resnet variants with research paper and practical*
~ *Inception net variants with research paper and practical*
~ *Darknet variants with research paper and practical*

=> **Advance computer vision part 2 :**

~ *Object detection in-depth*
~ *Transfer learning*
~ *Rcnn with research paper and practical*
~ *Fast rcnn with research paper and practical*
~ *Faster r cnn with research paper and practical*
~ *Ssd with research paper and practical*
~ *Ssd lite with research paper and practical*

=> **Training of custom object detection :**

~ *Tfod introduction*
~ *Environment setup with tfod*
~ *Gpu vs tpu vs cpu*
~ *Various gpu comparison*

=> **Advance computer vision part 3 :**

~ *Yolo v1 with research paper and practical*
~ *Yolo v2 with research paper and practical*
~ *Yolo v3 with research paper and practical*
~ *Yolo v4 with research paper and practical*
~ *Yolo v5 with research paper and practical*
~ *Retina net*
~ *Face net*
~ *Detectron2 with practical and live testing*

=> **Object segmentation :**

~ *Semantic segmentation*
~ *Panoptic segmentation*
~ *Masked rcnn*
~ *Practical with detectron*
~ *Practical with tfod*

=> **Object tracking :**

~ *Detail of object tracking*
~ *Kalman filtering*
~ *Sort*
~ *Deep sort*
~ *Object tracking live project with live camera testing*

=> **OCR :**

~ *Introduction to ocr*
~ *Various framework and api for ocr*
~ *Practical implementation of ocr*

=> **Advance NLP with deep-learning :**

~ *Overview computational linguistic.*
~ *History of nlp.*
~ *Why nlp*
~ *Use of nlp*

=> **Text processing importing text. :**

~ *Web scrapping.*
~ *Text processing*
~ *Understanding regex.*
~ *Text normalization*
~ *Word count.*
~ *Frequency distribution.*
~ *Text annotation.*
~ *Use of annotator.*
~ *String tokenization*

- ~ *Annotator creation.*
- ~ *Sentence processing.*
- ~ *Lemmatization in text processing*
- ~ *Pos.*
- ~ *Named entity recognition*
- ~ *Dependency parsing in text.*
- ~ *Sentimental analysis*

=> **Spacy :**

- ~ *Spacy overview.*
- ~ *Spacy function*
- ~ *Spacy function implementation in text processing.*
- ~ *Pos tagging, challenges and accuracy.*
- ~ *Entities and named entry recognition*
- ~ *Interpolation, language models*
- ~ *Nltk*
- ~ *Text blob*
- ~ *Stanford nlp*

=> **RNN :**

- ~ *Recurrent neural networks.*
- ~ *Long short term memory (lstm)*
- ~ *Bi lstm.*
- ~ *Stacked lstm*
- ~ *Gru implementation.*
- ~ *Building a story writer using character level rnn.*

=> **Word embedding :**

- ~ *Word embedding*
- ~ *Co-occurrence vectors*
- ~ *Word2vec*
- ~ *Doc2vec*

=> **Attention based model :**

- ~ *Seq 2 seq.*
- ~ *Encoders and decoders.*
- ~ *Attention mechanism.*
- ~ *Attention neural networks*
- ~ *Self-attention*

=> **Transfer learning in nlp :**

- ~ *Introduction to transformers.*
- ~ *Bert model.*
- ~ *Elmo model.*
- ~ *Gpt1 model*
- ~ *Gpt2 model.*
- ~ *Albert model.*
- ~ *Distilbert model*

=> **Deployment of model and performance tuning :**

- ~ *Deep learning model deployment strategies.*
- ~ *Deep learning project architecture*
- ~ *Deep learning model deployment phase.*
- ~ *Deep learning model retraining phase.*
- ~ *Deep learning model deployment in aws.*
- ~ *Deep learning model deployment in azure.*
- ~ *Deep learning model deployment in gcloud.*

=> **Big data introduction :**

- ~ *What is big data?*
- ~ *Big data application*
- ~ *Big data pipeline*

=> **Hadoop :**

- ~ *Hadoop introduction*
- ~ *Hadoop setup and installation*

=> **Spark :**

- ~ *Spark*
- ~ *Spark overview.*
- ~ *Spark installation.*
- ~ *Spark rdd.*
- ~ *Spark data frame.*
- ~ *Spark architecture.*
- ~ *Spark ml lib*
- ~ *Spark NLP*
- ~ *Spark linear regression*
- ~ *Spark logistic regression*
- ~ *Spark decision tree*
- ~ *Spark naive bayes*
- ~ *Spark xg boost.*
- ~ *Spark time series*
- ~ *Spark deployment in local server*
- ~ *Spark job automation with*
- ~ *Scheduler*

=> **Kafka :**

- ~ *Kafka introduction*
- ~ *Kafka installation*
- ~ *Spark streaming*
- ~ *Spark with Kafka*

=> Tableau :

- ~ Talking about Business Intelligence
- ~ Tools and Methodologies used in BI
- ~ Why Visualization is getting more popular
- ~ Why Tableau?
- ~ Gartner Magic Quadrant of Market Leaders
- ~ Future business impact of BI
- ~ Tableau Products
- ~ Tableau Architecture
- ~ BI Project Execution
- ~ Tableau Installation in local system
- ~ Introduction to Tableau Prep
- ~ Tableau Prep Builder User Interface
- ~ Data Preparation techniques using Tableau Prep Builder tool
- ~ How to connect Tableau with different data source
- ~ Visual Segments
- ~ Visual Analytics in depth
- ~ Filters, Parameters & Sets
- ~ Tableau Calculations using functions
- ~ Tableau Joins
- ~ Working with multiple data source (Data Blending)
- ~ Building Predictive Models
- ~ Dynamic Dashboards and Stories
- ~ Sharing your Reports
- ~ Tableau Server
- ~ User Security
- ~ Scheduling

=> Power BI :

- ~ Power BI introduction and overview
- ~ Key Benefits of Power BI
- ~ Power BI Architecture
- ~ Power BI Process
- ~ Components of Power BI
- ~ Power BI - Building Blocks
- ~ Power BI vs other BI tools
- ~ Power Installation
- ~ Overview of Power BI Desktop
- ~ Data Sources in Power BI Desktop
- ~ Connecting to a data Sources
- ~ Query Editor in Power BI
- ~ Views in Power BI
- ~ Field Pane
- ~ Visual Pane
- ~ Custom Visual Option
- ~ Filters
- ~ Introduction to using Excel data in Power BI
- ~ Exploring live connections to data with Power BI
- ~ Connecting directly to SQL Azure, HD Spark, SQL Server Analysis Services/ My SQL
- ~ Import Power View and Power Pivot to Power BI
- ~ Power BI Publisher for Excel
- ~ Content packs
- ~ Introducing Power BI Mobile
- ~ Power Query Introduction
- ~ Query Editor Interface
- ~ Clean and Transform your data with Query Editor
- ~ Data Type
- ~ Column Transformations vs Adding Columns
- ~ Text Transformations
- ~ Cleaning irregularly formatted data -Transpose
- ~ Date and Time Calculations
- ~ Advance editor: Use Case
- ~ Query Level Parameters
- ~ Combining Data Merging and Appending
- ~ Data Modelling
- ~ Calculated Columns
- ~ Measures/New Quick Measures
- ~ Calculated Tables
- ~ Optimizing Data Models
- ~ Row Context vs Set Context
- ~ Cross Filter Direction
- ~ Manage Data Relationship
- ~ Why is DAX important?
- ~ Advanced calculations using Calculate functions
- ~ DAX queries

=> Reinforcement Learning

Project details :-

=> Python Project :

- ~ Weeding script
- ~ Image resizing
- ~ Jupyter notebook merging, reading etc.
- ~ Sending emails
- ~ Weather app
- ~ Memes generator
- ~ Food log app
- ~ Web scrapping

- ~ Web crawlers for image data sentiment analysis and product review sentiment analysis.
- ~ Integration with web portal.
- ~ Integration with rest api, web portal and mongo db. on azure
- ~ Deployment on web portal on azure.
- ~ Text mining
- ~ Social media data churn
- ~ Mass copy, paste

=> Chatbot projects :

- ~ Chatbot using Microsoft Luis
- ~ Chatbot using google dialog flow
- ~ Chatbot using amazon lex
- ~ Chatbot using rasa nlu
- ~ Deployment of Chabot with web , telegram , WhatsApp, skype

=> Major projects :

- ~ Healthcare analytics prediction of medicines based on Fitbit band.
- ~ Revenue forecasting for startups.
- ~ Prediction of order cancellation at the time of ordering inventories.
- ~ anomaly detection in inventory packaged material.
- ~ Fault detection in wafers based on sensor data.
- ~ Demand forecasting for fmcg product.
- ~ Threat identification in security system.
- ~ Defect detection in vehicle engine.
- ~ Food price forecasting with zomato dataset.
- ~ Fault detection in wafers based on sensor data.
- ~ Cement strength reg.
- ~ Credit card fraud.
- ~ Forest cover classification.
- ~ Fraud detection.
- ~ Income prediction.
- ~ Mushroom classifier.
- ~ phishing classifier
- ~ Thyroid detection.
- ~ Visibility climate

=> Computer vision project :

- ~ Traffic surveillance system.
- ~ Object identification.
- ~ Object tracking.
- ~ Object classification.
- ~ Tensorflow object detection.
- ~ Image to text processing.
- ~ Speech to speech analysis.
- ~ Vision based attendance system

=> Mini NLP project :

- ~ Machine translation.
- ~ Abstractive text summarization.
- ~ Keyword spotting.
- ~ Language modelling.
- ~ Document summarization

=> Nlp transfer learning project :

- ~ Deployment and integration with UI machine translation.
- ~ Question answering (like chat bot)
- ~ Sentiment analysis imdb.
- ~ Text search (with synonyms).
- ~ Text classifications.
- ~ Spelling corrector.
- ~ Entity (person, place or brand) recognition.
- ~ Text summarization.
- ~ Text similarity (paraphrase).
- ~ Topic detection.
- ~ Language identification.
- ~ Document ranking.
- ~ Fake news detection
- ~ Plagiarism checker
- ~ Text summarization extractive
- ~ Text summarization abstractive.

=> NLP end to end project with architecture and deployment :

- ~ Movie review using bert
- ~ Ner using bert
- ~ Pos bert
- ~ Text generation gpt 2
- ~ Text summarization xlnet
- ~ Abstract bert
- ~ Machine translation
- ~ Nlp text summarization custom
- ~ Keras/tensorflow
- ~ Language identification
- ~ Text classification using fast bert
- ~ Neuralcore
- ~ Detecting fake text using gltr with bert and gpt2
- ~ Fake news detector using gpt2
- ~ Python plagiarism checker type a message
- ~ Question answering

Computer Vision Crash Course

Topic Name : DATA SCIENCE

Sub-topic Name : COMPUTER VISION

Course link : <https://ineuron.ai/course/Computer-Vision-Crash-Course>

Course Description :-

This specialisation is the first to cover the fundamentals of computer vision in depth. It is aimed at learners, practitioners, and researchers who have little or no experience with computer vision and focuses on the mathematical and physical foundations of vision. Any learner who completes this specialisation has the potential to succeed in the field of computer vision, which is a booming field that is predicted to grow in importance in the next decades.

Course Features :-

- => Challenges
- => Quizzes
- => Assignments
- => Downloadable resources
- => Completion certificate

What you will learn :-

- => Fundamentals of Computer Vision
- => CNN architectures, Classification
- => Various architecture usages with Computer Vision for advanced level works

Requirements :-

- => Basic knowledge of Python programming
- => A system with stable internet connection
- => Your dedication

Instructors :-

- => Sudhanshu Kumar :

~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

JavaScript Marathon

Topic Name : WEB DEVELOPEMENT

Sub-topic Name : JAVASCRIPT

Course link : <https://ineuron.ai/course/JavaScript-Marathon>

Course Description :-

This community course will help you to grab the fundamentals of JavaScript.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Introduction
- => Running Javascript in Browser
- => Strings & Numbers
- => var, let & const
- => Data Types
- => Type Conversions
- => Swap Numbers
- => String Handling
- => String Searching

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Scala

Topic Name : PROGRAMMING

Sub-topic Name : SCALA

Course link : <https://ineuron.ai/course/Scala>

Course Description :-

With actual executions and examples, this course will help you learn object-oriented parts of Scala, such as trait methods and XML. By the end of the course, you'll have a solid working knowledge of Scala and be able to apply it in real-world situations.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => What is Scala and Why to Learn Scala?
- => Scala Setup
- => Scala First Code
- => Scala Defining Variable using Var & Val
- => Class and Object in Scala
- => Creating Methods in Scala
- => List & Lambda Expression in Scala
- => List Reverse , Drop & Take
- => Scala Type Hierarchy
- => List of Complex Objects in Scala
- => Tuples in Scala

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Navin Reddy :

~ I am Corporate Java trainer. Since past few years successfully trained many professionals at JP Morgan, Accenture, Polaris and L&T infotech. My youtube channel "Telusko" presently has 1.7 million subscribers. Passionate about Java Technology for over a decade and moved on as a corporate trainer. I am certified blockchain developer and Currently, building Applications running on Blockchain (dapps).

Linux Live Class

Topic Name : DEVOPS

Sub-topic Name : LINUX

Course link : <https://ineuron.ai/course/Linux-Live-Class>

Course Description :-

This Linux course looks at the tools and techniques that Linux system administrators and end-users use on a daily basis to complete their tasks in a Linux environment.

Course Features :-

- => Online classes
- => Doubt Clearing
- => Live-Class Recording
- => Real-time Project
- => Assignment in all modules
- => Quiz in every module
- => Career Counselling
- => Completion Certificate

What you will learn :-

- => Linux Introduction
- => Setting up Our Linux Space
- => Linux Concepts
- => Package Management
- => Linux Commands
- => Working with Terminal
- => Permissions & Security

Requirements :-

- => A system with Internet Connection
- => Your dedication

Instructors :-

- => Sourangshu Pal :

~ Visual Computing Engineer and instructor at iNeuron.ai having 3 years of diverse experience in the discipline of visual computing with specialization in Deep Learning and Computer Graphics. Loves to analyze, process, and model visual data then interpret the insights to create actionable plans for solving challenging business problems.

Mastering DSA with C++

Topic Name : DATA STRUCTURE

Sub-topic Name : DSA WITH C++

Course link : <https://ineuron.ai/course/Mastering-DSA-with-C++>

Course Description :-

For performance-critical applications that need speed and effective memory management, C++ is an important programming language. It's employed in a variety of fields such as software and game development, virtual reality, robotics, and scientific computing. In this course you will learn the fundamentals of C++ with various data structures and algorithms.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => C++ programming basics
- => C++ data types
- => C++ data structures
- => Input/Output in C++
- => Control Flow in C++
- => Loops
- => Functions
- => OOP in C++
- => Memory management
- => Macros

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Enterprise Java with Spring Boot Tech Neuron

Topic Name : PROGRAMMING

Sub-topic Name : JAVA

Course link : <https://ineuron.ai/course/Enterprise-Java-with-Spring-Boot-Tech-Neuron>

Course Description :-

Java is one of the most widely used programming languages, owing to its versatility and compatibility. Java can be used for a variety of purposes, including software development, mobile application development, and large-scale system development. This Java course will teach you all you need to know to get started with Java.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Java Basics
- => Loops
- => OOP
- => Java Projects
- => Exception Handling
- => Blockchain Project
- => MultiThreading
- => Collection Framework
- => Junit
- => MySQL
- => NoSQL
- => JDBC
- => Hibernate

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Machine Learning in R

Topic Name : DATA SCIENCE

Sub-topic Name : MACHINE LEARNING

Course link : <https://ineuron.ai/course/Machine-Learning-in-R>

Course Description :-

The Machine Learning with R course has been specifically developed to aid in the development of a solid understanding of the fundamentals of machine learning. You'll learn how to prepare data for modeling, train your models, visualize and evaluate their performance, and fine-tune their parameters for improved results. Learn the abilities you'll need to work as a machine learning scientist.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Rstudio
- => Histograms
- => Scatterplots
- => overlaying plots
- => Simple Linear Regression
- => Multiple Linear Regression
- => Logistic Regression
- => Support Vector Machine
- => Decision Tree Classification

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

- => MD Imran :
 - ~ Working as Data Scientist with experience in solving real world business problems across different domains.

Class 6th Physics

Topic Name : K12

Sub-topic Name : CLASS6

Course link : <https://ineuron.ai/course/Class-6th-Physics>

Course Description :-

The Science Syllabus is elegantly designed such that it introduces the basic concepts of science and its importance in our daily life. It will make the foundation strong for the higher classes. The Physics section focuses on various concepts related to Motion, Light, Electricity, Magnetism, etc.

Course Features :-

=> Self Paced Videos

=> Completion Certificate

What you will learn :-

=> Fun with Magnets

=> Electricity and Circuits

=> Light, Shadows and Reflections

=> Motion and Measurement of Distance

Requirements :-

=> System with Internet Connection

=> Interest to learn

=> Dedication

Instructors :-

=> Jawala Prakash :

~

SQL Foundations

Topic Name : DATA ANALYTICS

Sub-topic Name : SQL

Course link : <https://ineuron.ai/course/SQL-Foundations>

Course Description :-

Data practitioners must master SQL since it is the most essential query language you can learn. Many prominent relational database management systems such as MySQL employ it. However, data analysis and big data frameworks and tools such as Apache Spark also utilise it. As a result, learning MySQL offers up a plethora of prospects and occupations - whether you want to work with relational databases or become a data scientist, knowing Mysql is essential. Even if you have no previous experience of MySQL, this practical course will build the groundwork for SQL and structured database querying.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Basic Concepts of Advantages of DBMS.
- => Exploring Relational DBMS
- => E-R Modeling and Diagram
- => Normalization
- => Introduction to SQL
- => DDL and DML Statements
- => Working with Queries (DQL)
- => Aggregate Functions
- => Joins and Set Operations
- => Implementation of Data integrity
- => Working with Constraints
- => Implementing Views

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

- => Sudhanshu Kumar :

~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Digital Marketing Foundation

Topic Name : DIGITAL MARKETING

Sub-topic Name : DIGITAL MARKETING MASTERS

Course link : <https://ineuron.ai/course/Digital-Marketing-Foundation>

Course Description :-

Grow your digital marketing results faster through the power of growth hacking! In this industry-leading course, you'll discover the extraordinary benefits of digital metrics, including lean analytics, web traffic, digital conversion funnels, and LTV and CAC calculations.

Course Features :-

- => Course for pre launch business owners who have no idea where to get started
- => For starting a freelancing techniques in Marketing field

What you will learn :-

- => From Scratch grow business online
- => Work from home as a Freelancer Marketer
- => Make money as an Affiliate Marketer

Requirements :-

- => No Experience required
- => Computer with Internet connectivity
- => Basic Programming understanding

Power BI Course

Topic Name : DATA ANALYTICS

Sub-topic Name : POWER BI

Course link : <https://ineuron.ai/course/Power-BI-Course>

Course Description :-

Learn why Power BI delivers a comprehensive collection of Business Intelligence tools for your data analysis needs, and how to utilise these tools to do all of the aforementioned activities and more in this course. It's a fantasy to be able to organise your data in a matter of minutes, effortlessly add computations to it, and then generate and share beautiful charts from the data.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Tables and Matrix in Power BI
- => Working with Maps
- => Cards and Filters
- => Power Query

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Pawan Lalwani :

~ Pawan is a highly skilled and self motivated trainer who has expertise in various business intelligence tools like Power BI, Tableau and Microsoft Excel. He comes with 10 years of experience in training individuals in different industry sectors like Banking, Finance, Healthcare, IT, Automobile, Manufacturing and Pharmaceutical.

Data Manipulation using Pandas

Topic Name : K12

Sub-topic Name : CLASS6

Course link : <https://ineuron.ai/course/Data-Manipulation-using-Pandas>

Course Description :-

This course will teach students the fundamentals of data analysis using the highly popular Pandas library in Python programming. The course will cover data manipulation and cleaning techniques using the popular Python pandas data science library, as well as the abstraction of Series and DataFrame as central data structures for data analysis, as well as tutorials on how to effectively use functions like groupby, merge, and pivot tables. Students will be able to take tabular data, clean it, alter it, and execute basic inferential statistical analyses at the conclusion of this course.

Course Features :-

- => Online Instructor-led learning
- => Practical Implementation
- => Integrate academic knowledge with the tech
- => Real-time Project
- => Live Class Recording
- => Doubt Clearing
- => Assignment in all the Module
- => Quiz in every Module
- => Career Counselling
- => Completion Certificate

What you will learn :-

- => Introduction to Pandas
- => Basic Data structure of Pandas
- => Pandas Series
- => Pandas DataFrame
- => Pandas Operation
- => Pandas groupby
- => Data Operation
- => Plotting in Pandas
- => Advance Pandas
- => Project

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

NLP Crash Course

Topic Name : DATA SCIENCE

Sub-topic Name : NLP

Course link : <https://ineuron.ai/course/NLP-Crash-Course>

Course Description :-

Natural language processing (NLP) is one of the artificial intelligence's most essential and helpful application fields. As new methodologies and toolsets combine with ever-increasing data availability, NLP is rapidly evolving. In this course, you'll learn about the core concepts of natural language processing (NLP) and how it applies to current and new technologies. You will obtain a comprehensive understanding of contemporary neural network techniques for linguistic data processing. You'll be able to progress from word representation and syntactic processing to creating and executing complicated deep learning models for question answering, machine translation, and other language understanding problems by mastering cutting-edge methodologies.

Course Features :-

- => Quizzes
- => Assignments
- => Hands-on practicals
- => Downloadable resources
- => Completion certificate

What you will learn :-

- => NLP important topics
- => Transfer learning mechanism
- => Real-time project implementation

Requirements :-

- => Basic knowledge of Python programming
- => A system with stable internet connection
- => Your dedication

Instructors :-

=> Sudhanshu Kumar :

~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Create A Data Pipeline based on Messaging Using PySpark and Airflow

Topic Name : BIG DATA

Sub-topic Name : BIG DATA PROJECTS

Course link : <https://ineuron.ai/course/Create-A-Data-Pipeline-based-on-Messaging-Using-PySpark-and-Airflow>

Course Description :-

In this Project, we will learn how to Build a Big Data pipeline on AWS at scale. You will be using the Covid-19 dataset. This will be streamed in real time from an external API using NiFi. The complex JSON data will be parsed into CSV format using NiFi and the result will be stored in HDFS. Then this data will be sent to Kafka for data processing using PySpark. The processed data will then be consumed from Spark and stored in HDFS. Then a Hive external table is created on top of HDFS. Finally the cleaned, transformed data is stored in the data lake and deployed. Visualization is then done using Tableau and AWS QuickSight.

Course Features :-

- => Do Everything In Industry Grade Lab
- => Learn As Per Your Timeline
- => Hands-On Industry Real-Time Projects.
- => Self Paced Learning
- => Dashboard Access

What you will learn :-

- => Real Time Projects
- => Create A Data Pipeline based on Messaging Using PySpark and Airflow
- => Build End to End Datapipeline
- => How to Extract Streaming Data into NFFI
- => Data Encryption
- => Data processing using pyspark
- => Build Dashboards

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

=> MD Imran :

~ Working as Data Scientist with experience in solving real world business problems across different domains.

Complete React Native Mobile App Developer

Topic Name : MOBILE DEVELOPEMENT

Sub-topic Name : REACT NATIVE

Course link : <https://ineuron.ai/course/Complete-React-Native-Mobile-App-Developer>

Course Description :-

There is no need to learn Java, Android Development, Swift programming, or anything else, all you need is React and JavaScript to build great native mobile applications including both Android and iOS. This is undoubtedly why Instagram, Uber, Skype, and plenty of other major brands use it to create mobile applications. You may join this league if you complete this course. You'll learn all there is to know about React Native's philosophy and fundamental principles, as well as how to create responsive designs that function on a variety of device sizes, how to navigate, and much more.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => React elements
- => React styles
- => Touchable and props
- => Handling images in React
- => Handling sound in React
- => Handling multiple users
- => Camera integration
- => Redux

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

RPA - UiPath

Topic Name : RPA

Sub-topic Name : UIPATH

Course link : <https://ineuron.ai/course/RPA---UiPath>

Course Description :-

Learn and master UiPath Studio and then build state-of-the-art software robots from scratch. UiPath has evolved to become the only RPA platform in the market to support the full automation lifecycle from discovery to measurement. Its product portfolio continues to stay at the forefront of innovation, continuously expanding its traditional RPA offering capabilities to include tools like process mining, embedded analytics, improved AI fabric components, SaaS-based RPA, and test automation. UiPath is considered one of the fastest RPA solutions in the industry as well often 3-4x faster than other RPA products.

Course Features :-

- => Online Live Classes
- => Doubt Clearing
- => Live-Class Recording
- => Real-time Project
- => Assignment in all modules
- => Quiz in every module
- => Career Counselling
- => Completion Certificate

What you will learn :-

- => Introduction to Course
- => What is RPA
- => ControlFlows in UiPath
- => Variables and Arguments in UiPath
- => Module 1: Input Activities and Methods in UiPath
- => Module 2: Type of Workflows in UiPath
- => Module 3: Selectors and Recordings in UiPath
- => Module 4: Error Handling and Debugging in UiPath
- => Module 5: Unstructured and Data Scrapping methods in UiPath
- => Module 6: Excel, PDF and Email activities in UiPath
- => Module 7 : Synchronization activities in UiPath
- => Module 8 : Connecting with Git, TFS and SVN in UiPath
- => Module 9 : Orchestrators in UiPath
- => Module 10 : ReFramework in UiPath

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Full Stack Data Analytics 2.0

Topic Name : DATA ANALYTICS

Sub-topic Name : BUSINESS ANALYTICS MASTERS

Course link : <https://ineuron.ai/course/Full-Stack-Data-Analytics-2.0>

Course Description :-

The full stack data analytics course is meant to assist you in becoming a skilled data analyst. Learn how to deal with SQL databases, develop data visualizations, and apply predictive analytics and statistics in a corporate environment using the best analytics tools and methodologies.

Course Features :-

- => Full stack Data Analytics certification
- => Internship Anytime
- => Online Instructor-led learning: Live teaching by instructors
- => 15+ hands-on industry real-time projects.
- => 100 hours live interactive classes.
- => Every week doubt clearing session after the live classes.
- => Lifetime Dashboard access
- => Doubt clearing one to one
- => Doubt clearing through mail & support team
- => Live project with real-time implementation
- => Resume building Anytime
- => Career guidance Anytime
- => Interview Preparation
- => Regular assessment
- => Mock Interview

What you will learn :-

- => MySQL
- => Basic Charts in Power BI
- => Working with Maps
- => Slicers in Power BI
- => Cards and Filters
- => Power Query
- => M Language
- => Tableau
- => SQL
- => Python
- => Statistics
- => Excel
- => Informatica Cloud (IICS)

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> krish naik :

~ Having 10+ years of experience in Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

=> Sudhanshu Kumar :

~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

=> Anand Jha :

~ Experienced developer with 6+ years of overall IT experience in Software Development Life Cycle. Vast experience in helping clients in their business

requirements delivery through data acquisition, analysis, and driving insights through machine learning model developments, KPI reporting, and driving business to a higher level. Data Story Teller using MS-Excel, Tableau & Powerbi by analyzing raw data and building KPI Reports. Solid understanding of exploratory data analysis using SQL, R and PYTHON Advanced understanding of statistical, algebraic, and other analytical techniques Good understanding of Cloud Technologies : SNOWFLAKE , AWS , AZURE & GOOGLE CLOUD Experience working in an Agile Environment. Strong Communication, Presentation, and Interpersonal skills with excellent problem-solving capabilities.

Business Analytics

Topic Name : DATA ANALYTICS

Sub-topic Name : BUSINESS ANALYTICS MASTERS

Course link : <https://ineuron.ai/course/Business-Analytics>

Course Description :-

Learn the power of using powerful visualization tools such as PowerBi and Tableau alongside advanced excel coupled with the most important fundamentals of Python

Course Features :-

- => Business Analytics Certification
- => Online Instructor-led learning: Live teaching by instructors
- => Hands-on project implementation
- => 100+ hours of live interactive classes
- => Every week doubt clearing session after the live classes
- => Lifetime Dashboard access
- => Assignments in all the module
- => Live class recordings and materials
- => Interview Questions

What you will learn :-

- => Python
- => PowerBI
- => Tableau
- => Advanced Excel
- => Statistics

Requirements :-

- => Laptop
- => Stable internet connection
- => Your Dedication

Curriculum details :-

=> Introduction to Analytics

=> Python for Data Analytics :

- ~ Install setup and overview
- ~ Ipython/Jupyter Notebook overview
- ~ Intro to NUMPY
- ~ Creating Arrays.
- ~ Using Arrays and Scalar
- ~ Indexing Arrays
- ~ Arrays transposition
- ~ Universal arrays function
- ~ Arrays processing
- ~ Array input and output
- ~ Series
- ~ DataFrames
- ~ Index Objects
- ~ Re-index
- ~ Drop entry
- ~ Selecting entries
- ~ Data alignment
- ~ Rank and Sort
- ~ Summary statistics
- ~ Missing data
- ~ Index Hierarchy
- ~ Reading and writing text files
- ~ JSON with Python
- ~ HTML with Python
- ~ Microsoft Excel files with Python
- ~ Merge
- ~ Merge on Index
- ~ Concatenate
- ~ Combining Data Frames
- ~ Reshaping
- ~ Pivoting
- ~ Duplicates in DataFrames

- ~ Mapping
- ~ Replace
- ~ Rename index
- ~ Binning
- ~ Outliners
- ~ Permutation
- ~ GroupBy on DataFrames
- ~ GroupBy on Dict and Series
- ~ Aggregation
- ~ Splitting, Applying and combining.
- ~ Cross Tabulation
- ~ Installing Seaborn
- ~ Histograms
- ~ Kernel Density estimate plots
- ~ Combining plot styles
- ~ Box and Violin plots
- ~ Regression Plots
- ~ Heat maps and clustered matrices
- ~ Introduction to SQL with Python
- ~ SQL - SELECT, DISTINCT, WHERE, AND & OR
- ~ SQL WILDCARDS, ORDER BY, GROUP BY, and Aggregate Functions

=> SQL FOR DATA ANALYTICS :

- ~ Introduction.
- ~ ER Diagram.
- ~ Schema Design.
- ~ Normalization.
- ~ SQL SELECT statement.
- ~ SQL SELECT using common functions.
- ~ SQL JOIN overview.
- ~ INNER JOIN.
- ~ LEFT JOIN.
- ~ RIGHT JOIN.
- ~ FULL JOIN.
- ~ SQL best practice.
- ~ INNER JOIN Advanced.
- ~ INNER JOIN and LEFT JOIN combo.
- ~ SELF JOIN.
- ~ JOINS and AGGREGATION Subqueries.
- ~ Sorting.
- ~ Independent Subqueries.
- ~ Co related Subqueries.
- ~ Analytic function.
- ~ Set operations.
- ~ SQL views.
- ~ Create a view.
- ~ Create a view using DDL.
- ~ SQL insert Advanced Technique.
- ~ Insert to create table.
- ~ INSERT to new data on existing table 1.
- ~ INSERT to new data on existing table 2.
- ~ INSERT to new data on existing table 3
- ~ INSERT to new data on existing table 4.
- ~ SQL update Advance technique and TCL.
- ~ SQL delete and TCL.
- ~ SQL constraints.
- ~ SQL aggregations.
- ~ SQL programmability.
- ~ SQL query performance.
- ~ SQL Extras.

=> Advance Excel

=> Data wrangling with Excel :

- ~ Microsoft Excel fundamentals.
- ~ Entering and editing texts and formulae.
- ~ Working with basic Excel functions.
- ~ Modifying an Excel worksheet.
- ~ Formatting data in an excel worksheet.
- ~ Inserting images and shapes into an Excel worksheet.
- ~ Creating Basic charts in Excel.
- ~ Printing an Excel worksheet.
- ~ Working with an Excel template.
- ~ Working with an excel list.
- ~ Excel list function.
- ~ Excel data validation.
- ~ Importing and exporting data.
- ~ Excel pivot tables.
- ~ Working with excels PowerPivot tools.
- ~ Working with large sets of Excel data.
- ~ Conditional function.
- ~ Lookup functions.
- ~ Text based functions.
- ~ Auditing and Excel worksheet.
- ~ Protecting Excel worksheets and workbooks.
- ~ Mastering Excel "What if?" Tools?
- ~ Automating Repetitive Tasks in Excel with Macros.
- ~ Macro Recorder Tool.
- ~ Excel VBA Concepts.

- ~ Advance VBA.
- ~ Preparing and Cleaning Up Data with VBA.
- ~ VBA to Automate Excel Formulas.
- ~ Preparing Weekly Report.
- ~ Working with Excel VBA User Forms.
- ~ Importing Data from Text Files.

=> Business Statistics :

- ~ Descriptive Analytics.
- ~ Inferential Statistics.
- ~ Hypothesis Test 1 & 2.
- ~ Covariance.
- ~ Correlation.
- ~ Regression.
- ~ Conjoint & Discriminant Analysis.
- ~ Discrete Uniform Distribution.
- ~ Continuous Uniform Distribution.
- ~ Binomial Distribution.
- ~ Poisson Distribution.
- ~ Normal Distribution.
- ~ Sampling Techniques.
- ~ T Distribution.
- ~ Hypothesis Testing and Confidence Intervals.
- ~ Chi Square Test and Distribution.
- ~ Bayes Theorem.

=> Visual Analyst :

- ~ Talking about Business Intelligence.
- ~ Tools and Methodologies used in BI.
- ~ Why Visualization is getting more popular.
- ~ Why Tableau?
- ~ Gartner Magic Quadrant of Market Leaders.
- ~ Future business impact of BI.
- ~ Let's Explore
- ~ Tableau Products.
- ~ Tableau Architecture.
- ~ BI Project Execution.
- ~ Tableau Installation in local system.
- ~ Introduction to Tableau Prep.
- ~ Tableau Prep Builder User Interface.
- ~ Data Preparation techniques using Tableau Prep Builder tool.
- ~ How to connect Tableau with different data source.
- ~ Visual Segments.
- ~ Visual Analytics in depth.
- ~ Filters, Parameters & Sets.
- ~ Tableau Calculations using functions.
- ~ Tableau Joins.
- ~ Working with multiple data source (Data Blending).
- ~ Building Predictive Models.
- ~ Dynamic Dashboards and Stories.
- ~ Sharing your Reports.
- ~ Tableau Server.
- ~ User Security.
- ~ Scheduling.
- ~ PDF File.
- ~ JSON File.
- ~ Spatial File.
- ~ Statistical File.
- ~ Microsoft SQL Server.
- ~ Salesforce.
- ~ AWS.
- ~ Azure.
- ~ Google Analytics.
- ~ R.
- ~ Python.
- ~ Hadoop.
- ~ OneDrive.
- ~ Microsoft Access.
- ~ SAP HANA.
- ~ SharePoint.
- ~ Snowflake.
- ~ Subject.
- ~ Planning.
- ~ Pen & Paper approach.
- ~ Tools.
- ~ Color theme.
- ~ Shapes.
- ~ Fonts.
- ~ image Selection.
- ~ text position.
- ~ visual placing.
- ~ Story layout & design.
- ~ Dashboard planning.
- ~ Power BI introduction and overview.
- ~ Key Benefits of Power BI.
- ~ Power BI Architecture.
- ~ Power BI Process.
- ~ Components of Power BI.
- ~ Power BI Building Blocks.

- ~ Power BI vs other BI tools.
- ~ Power Installation.
- ~ Overview of Power BI Desktop.
- ~ Data Sources in Power BI Desktop.
- ~ Connecting to a data Sources.
- ~ Query Editor in Power BI.
- ~ Views in Power BI.
- ~ Field Pane.
- ~ Visual Pane.
- ~ Custom Visual Option.
- ~ Filters.
- ~ Introduction to using Excel data in Power BI.
- ~ Exploring live connections to data with Power BI.
- ~ Connecting directly to SQL Azure, HD Spark, SQL Server Analysis Services/ My SQL.
- ~ Introduction to Power BI Development API.
- ~ Import Power View and Power Pivot to Power BI.
- ~ Power BI Publisher for Excel.
- ~ Content packs.
- ~ Introducing Power BI Mobile.
- ~ Power Query Introduction.
- ~ Query Editor Interface.
- ~ Clean and Transform your data with Query Editor.
- ~ Data Type.
- ~ Column Transformations vs Adding Columns.
- ~ Text Transformations.
- ~ Cleaning irregularly formatted data Transpose.
- ~ Date and Time Calculations.
- ~ Advance editor: Use Case.
- ~ Query Level Parameters.
- ~ Combining Data Merging and Appending.
- ~ Data Modelling.
- ~ Calculated Columns.
- ~ Measures/New Quick Measures.
- ~ Calculated Tables.
- ~ Optimizing Data Models.
- ~ Row Context vs Set Context.
- ~ Cross Filter Direction.
- ~ Manage Data Relationship.
- ~ Why is DAX important?
- ~ Advanced calculations using Calculate functions
- ~ DAX queries.
- ~ DAX Parameter Naming.
- ~ Time Intelligence Functions.
- ~ Types of visualization in a Power BI report.
- ~ Custom visualization to a Power BI report.
- ~ Matrixes and tables.
- ~ Getting started with color formatting and axis properties.
- ~ Change how a chart is sorted in a Power BI report.
- ~ Move, resize, and pop out a visualization in a Power BI report.
- ~ Drill down in a visualization in Power BI.
- ~ Drill Through.
- ~ Histograms.
- ~ Basic Area chart.
- ~ Combo Chart in Power BI.
- ~ Customize visualization title, background, and legend.
- ~ Doughnut charts in Power BI.
- ~ Scatter Charts in Power BI.
- ~ Funnel charts in Power BI.
- ~ KPI Visuals.
- ~ Radial Gauge charts in Power BI.
- ~ Bookmarks in Power BI.
- ~ Slicers in Power BI.
- ~ Filters.
- ~ Report Level Parameters.
- ~ Z Order.
- ~ Waterfall charts in Power BI.
- ~ Create a Power BI dashboard.
- ~ Dashboard tiles in Power BI.
- ~ Pin a tile to a Power BI dashboard from a report.
- ~ Pin an entire report page to a Power BI dashboard.
- ~ Data alerts in Power BI service.
- ~ Add an image, text box, video, hyperlink or web code to your dashboard.
- ~ Configuring a Dashboard.
- ~ Power BI Q&A.
- ~ Display a dashboard tile in Focus mode.
- ~ Power BI embedded.
- ~ Row Level Security in Power BI.
- ~ Report Server Basics.
- ~ Refresh a dataset created from a Power BI Desktop file local.
- ~ Refresh a dataset created from a Power BI Desktop file cloud.
- ~ Web Portal.
- ~ Paginated Reports.
- ~ Data Gateways.
- ~ Scheduled Refresh.
- ~ Resources (Rest API/ SOAP APIs/ URL Access).
- ~ R Integration in Power BI Desktop.
- ~ R Powered Custom Visuals.
- ~ Creating R visuals in Power BI.

- ~ *R Visuals in Power BI Service.*
- ~ *R Scripts Security.*
- ~ *Creating visual using Python.*

=> Predictive Analytics :

- ~ *Machine Learning*
- ~ *Deep Learning*

=> Descriptive Analytics :

- ~ *EDA*

Project details :-

=> Python for Data Analytics :

- ~ *Stock Market Analysis.*
- ~ *House prices : Advanced Regression Techniques.*
- ~ *Election Analysis.*

=> SQL FOR DATA ANALYTICS :

- ~ *Ecommerce analysis Tableau integration.*
- ~ *Sales Data Analysis Tableau integration.*

=> Data wrangling with Excel :

- ~ *E Commerce Customer Analysis.*
- ~ *Project Management Dashboard.*
- ~ *Sales Dashboard.*

Complete Bootstrap4 - Build 5 Projects

Topic Name : WEB DEVELOPEMENT

Sub-topic Name : BOOTSTRAP

Course link : <https://ineuron.ai/course/Complete-Bootstrap4---Build-5-Projects>

Course Description :-

This course will take you from having no prior knowledge of Bootstrap to mastering all of the utilities, components, widgets, and grids, as well as designing real-world themes and websites. This project oriented course does not need prior knowledge of Bootstrap .Upon successful completion of this course, you will be able to build responsive and interactive websites and beautiful static pages using the bootstrap framework. So hurry up and enroll now to start a successful career as a front-end web developer.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Bootstrap Integration and typography
- => Buttons, breakpoints and utilities
- => Team pages
- => Navbars
- => Flexboxes
- => Forms
- => Modals
- => Custom cards

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Mathematics using Python

Topic Name : K12

Sub-topic Name : CLASS9

Course link : <https://ineuron.ai/course/Mathematics-using-Python>

Course Description :-

Many people are unaware that Python is a fantastic tool for studying mathematics. Python may be used as a basic calculator, but did you know that it can also be used to master more difficult concepts in algebra, geometry, and matrix analysis? That's precisely what this course will teach you. This course introduces Python programming to students with the help of various mathematical concepts taught in schools. This course is designed in order to help students in understanding the different mathematical subjects and concepts with the help of practical programming and hands-on practice in the Python programming language.

Course Features :-

- => Online Instructor-led learning
- => Practical Implementation
- => Integrate academic knowledge with tech
- => Real-time project
- => Live class recording
- => Doubt clearing
- => Assignment in all the module
- => Quiz in every module
- => Career Counselling
- => Completion certificate

What you will learn :-

- => Linear algebra
- => Vector operations
- => Matrix
- => Eigen Vectors and Eigen Values
- => Matrix Operations in Machine Learning

Requirements :-

- => Interest to learn
- => Dedication
- => System with good internet connection

SPARK Augmented Reality Live Class

Topic Name : AR VR

Sub-topic Name : SPARK AR

Course link : <https://ineuron.ai/course/SPARK-Augmented-Reality-Live-Class>

Course Description :-

If you're interested in learning about Augmented Reality, you've come to the perfect spot. Learn the concepts and programming skills needed to create fully functional Augmented Reality apps for Android and iOS. You will need an Android or iPhone to complete this course.

Course Features :-

- => Online Live Classes
- => Doubt Clearing
- => Live-Class Recording
- => Real-time Project
- => Assignment in all modules
- => Quiz in every module
- => Career Counselling
- => Completion Certificate

What you will learn :-

- => Mac or Windows laptop
- => Understanding the fundamentals of Unity and C# programming will be quite beneficial.

Requirements :-

- => A System with Windows or Mac
- => An iPhone or Android Smartphone
- => Basic Knowledge of Programming is required

Instructors :-

=> Monal Kumar :

~ Monal Kumar is a data scientist and instructor working at iNeuron having 2+ years of total experience in both service and product-based organisations. He is specialised in Deep Learning, Computer vision and Image processing. Previously, he held positions as a support configurator at Wipro Technologies and as a Deep Learning researcher at Harptec Research. Offering the finest possible services to his clients. In addition to his primary job function, he is recognised for his creativity and ideas that change the nature of the existing problem.

Curriculum details :-

=> Introduction :

- ~ Introduction to Augmented and Virtual Reality
- ~ Introducing the Platform(Navigation and Keyboard shortcuts)

=> Templates :

- ~ Briefing all the templates available
- ~ Asset library
- ~ Object Manipulation

=> Simple Mask :

- ~ Face tracker
- ~ Face meshes
- ~ Alpha issues
- ~ Layers
- ~ Lut filter

=> 3D object :

- ~ Animation and Transition
- ~ Dynamic Text

=> 2D object :

- ~ Working with canvases and rectangles

=> Segmentation :

- ~ Body segmentation
- ~ Hair segmentation

=> Tracking :

- ~ Plane tracking
- ~ Hand tracking
- ~ Body tracking
- ~ Target tracking

=> Option Picker :

- ~ *Ui Picker*
- ~ *Slider patch*

=> Render passes :

- ~ *Scene, shader and face render pass*

=> Makeup :

- ~ *Retouching*
- ~ *Deformation*
- ~ *Eye color, Lashes*
- ~ *Blush, Lip color*

=> World effect :

- ~ *Particle systems*

=> Interactions :

- ~ *Patch editor*
- ~ *Face interactions*
- ~ *Screen interactions*

=> Shaders :

- ~ *Basics of creating shaders*

=> Scripting :

- ~ *Basics*

=> Miscellaneous :

- ~ *Audio and Music*
- ~ *Lights*
- ~ *SDF textures*
- ~ *Multipeer effect*
- ~ *Filter games*

=> Publish and Export :

- ~ *Optimisation*

=> Misc Projects :

- ~ *NaN*

Chatbot using Azure Luis

Topic Name : DATA SCIENCE

Sub-topic Name : CHATBOT

Course link : <https://ineuron.ai/course/Chatbot-using-Azure-Luis>

Course Description :-

According to Gartner, 25% of customer service and support operations will integrate virtual customer assistant (VCA) or chatbot technology across engagement channels by 2020, up from less than 2% in 2017.

Course Features :-

=> Lifetime Dashboard

=> Free Course

What you will learn :-

=> Create A FAQ into chatbot

=> In Local run chatbot with using Microsoft Azure Luis bot emulator

=> Understand Entities, intents and Utterance

Requirements :-

=> You should have Microsoft Azure account

Curriculum details :-

=> Tutorial 1 Weather Chatbot Project Using Azure Luis Outline :

~ Introduction Preview

=> Tutorial 2-Weather Chatbot Project Using Azure Luis- Chatbot Introduction

=> Tutorial 3- Weather Chatbot Project Using Luis- Problem Statement

=> Tutorial 4-Weather Chatbot Project Using Luis- Building the Luis App

=> Tutorial 5-Weather Chatbot Project Using Luis- Building the Python App

=> Tutorial 6-Weather Chatbot Project Using Azure Luis- Deployment Of Chatbot

=> Tutorial 7-Weather Chatbot Project Using Azure Luis- Integration With Telegram

=> Tutorial 8-Weather Chatbot Project Using Azure Luis- Conclusion

PL SQL

Topic Name : DATABASE

Sub-topic Name : MYSQL

Course link : <https://ineuron.ai/course/PL-SQL>

Course Description :-

In this Oracle 11g PL/SQL course you will receive introduction training on PL/SQL database programming language covering syntax, structure and features of the language within the context of database applications and programming.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Introduction to PLSQL
- => Features and syntax of PL/SQL
- => Use PL/SQL programming constructs
- => Conditionally control code flow
- => Create overloaded package subprograms
- => Collections
- => Implicit and Explicit Cursors

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn
- => Basic SQL

Instructors :-

- => MD Imran :
 - ~ Working as Data Scientist with experience in solving real world business problems across different domains.

Curriculum details :-

- => PLSQL :
 - ~ Introduction Preview
 - ~ Installation Preview
 - ~ Basic Syntax part 1
 - ~ Basic Syntax part 2
 - ~ Data Types
 - ~ Variables part 1
 - ~ Variables part 2
 - ~ Literals
 - ~ Operators
 - ~ Conditions
 - ~ Loops
 - ~ Strings
 - ~ Arrays
 - ~ Procedures
 - ~ Functions
 - ~ Cursors Preview
 - ~ Records
 - ~ Exceptions
 - ~ Trigger
 - ~ Packages
 - ~ Collections
 - ~ Transactions
 - ~ Data Types
 - ~ DBMS output

Web Automation Foundations

Topic Name : TESTING

Sub-topic Name : AUTOMATION TESTING

Course link : <https://ineuron.ai/course/Web-Automation-Foundations>

Course Description :-

During this community sessions we are going to have lot of Q&A sessions on Automation Career Guidance, Interview preparations , Web Automation using Selenium, TestNG and Maven too.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Roadmap to learn Automation Testing
- => Different tools for automation in each category
- => How to write first Automation Script
- => XPath and Css Selector
- => Automating CRM End-to-End Scenarios Using Selenium

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Mukesh Otvani :

~ Myself Mukesh Otvani having 10 years of experience in Automation Testing and worked with Dell International and SAP Labs India. I am also passionate teacher, mentor, have been into teaching for 8 years now and running a YouTube channel with 137000 subscribers and 480+ videos on different tools and libraries.

Curriculum details :-

- => Day1 :
 - ~ Getting Started With Automation Testing - Orientation Program
- => Day2 :
 - ~ Roadmap to learn Automation Testing
- => Day3 :
 - ~ Different tools for automation in each category
- => Day4 :
 - ~ Q & A Session
- => Day5 :
 - ~ Web Automation using Selenium - Download and Installation
- => Day6 :
 - ~ How to write first Automation Script
- => Day7 :
 - ~ Selectors in detail
- => Day8 :
 - ~ XPath and Css Selector
- => Day9 :
 - ~ Automating CRM End-to-End Scenarios Using Selenium
- => Day10 :
 - ~ Interview Preparation For Automation - Session 1
- => Day11 :
 - ~ Interview Preparation For Automation - Session 2
- => Day12 :
 - ~ Interview Preparation For Automation - Session 3

=> Day13 :

~ Interview Preparation For Automation - Session 4

=> Day14 :

~ Interview Preparation For Automation - Session 5

=> Day15 :

~ Testing - Session 1

=> Day16 :

~ Testing- Session 2

=> Day17 :

~ Testing- Session 3

=> Day18 :

~ Maven- Session 4

=> Day19 :

~ Q & A Session

Pro Aptitude - Python

Topic Name : APTITUDE

Sub-topic Name : APTITUDE

Course link : <https://ineuron.ai/course/Pro-Aptitude---Python>

Course Description :-

This course is designed mostly for Python Coding test takers.

Course Features :-

=> Quizzes

=> Course completion certificate

What you will learn :-

=> Python Aptitude Test

=> Python Practical Test

Requirements :-

=> System with minimum i3 processor or better

=> At least 4 GB of RAM

=> Working internet connection

=> Dedication to solve

Curriculum details :-

=> Python Aptitude Test :

~ *Python Test 1*

~ *Python Test 2*

~ *Python Test 3*

~ *Python Test 4*

Aptitude Live Class

Topic Name : APTITUDE

Sub-topic Name : APTITUDE

Course link : <https://ineuron.ai/course/Aptitude-Live-Class>

Course Description :-

Quantitative aptitude is a test that assesses a person's numerical and problem-solving abilities. This is a common section seen on most competitive examinations. This Aptitude course has been designed to help students get started and succeed in tests and interviews.

Course Features :-

- => Online live classes
- => Doubt Clearing
- => Live-Class Recording
- => Real-time Project
- => Assignment in all modules
- => Quiz in every module
- => Career Counselling
- => Completion Certificate

What you will learn :-

- => Numbers & Algebra
- => Percentage
- => Average
- => Time & Work
- => Distance
- => Time & Speed
- => Ratio, Proportion & Mixture

Requirements :-

- => No Prior knowledge
- => A system with internet connection.
- => Your dedication

Instructors :-

=> Prerna Singh :

~ I have guided and mentored children for 8+ Years. I teach mathematics to children across grades 9-12. Also having helped children for more than 8 years & being a university topper, I know how to guide children best when it is about performing under stress and managing time in the best possible way. I have experience in both taking live classes and delivering offline sessions to children. Being a passionate math educator & enthusiast, helps me deliver the best of my capabilities. It also helps deliver interactive sessions.

Curriculum details :-

=> Number Systems :

- ~ Numbers & their types
- ~ Prime numbers
- ~ Divisibility
- ~ Formulae
- ~ Tricks & tips
- ~ Previous year questions

=> HCF & LCM :

- ~ Definition
- ~ Factors & Multiples
- ~ Methods to find HCF, LCM
- ~ HCF & LCM of fractions
- ~ Tricks & Tips
- ~ Formulae
- ~ Previous year questions

=> Simplification :

- ~ BODMAS rule
- ~ Modulus of real number
- ~ Vinculum
- ~ Questions
- ~ Formulae
- ~ Tricks & tips

~ *Previous year questions*

=> Surds and Indices :

~ *Definition*

~ *Types*

~ *Laws*

~ *Formulae*

~ *Tricks & Tips*

~ *Previous year questions*

=> Problems on Ages :

~ *Introduction*

~ *Questions*

~ *Formulae*

~ *Tricks & Tips*

~ *Previous year questions*

=> Time Speed Distance :

~ *Introduction*

~ *Average speed*

~ *Relative Speed*

~ *Formulae*

~ *Tricks & Tips*

~ *Previous year questions*

=> Time and Work :

~ *Basics & Concepts*

~ *Questions*

~ *Formulae*

~ *Tricks & Tips*

~ *Previous year questions*

=> Boats and Streams :

~ *Basics & Concepts*

~ *Questions*

~ *Formulae*

~ *Tricks & Tips*

~ *Previous year questions*

=> Pipes and Cisterns :

~ *Introduction*

~ *Questions*

~ *Formulae*

~ *Tricks & Tips*

~ *Previous year questions*

=> Progressions :

~ *AP, GP, HP Basics*

~ *Sequence & Series Difference*

~ *Questions*

~ *Formulae*

~ *Tricks & Tips*

~ *Previous year questions*

=> Averages :

~ *Introduction*

~ *Definition & types*

~ *Questions*

~ *Formulae*

~ *Tricks & Tips*

~ *Previous year questions*

=> Alligations and Mixtures :

~ *Introduction*

~ *Types*

~ *Questions*

~ *Formulae*

~ *Tricks & Tips*

~ *Previous year questions*

=> Percentages :

~ *Basics & Concepts*

~ *Questions*

~ *Formulae*

~ *Tricks & Tips*

~ *Previous year questions*

=> Profit Loss :

~ *Introduction*

~ *Basics & Concepts*

~ *Questions*

~ *Formulae*

~ *Tricks & Tips*

~ *Previous year questions*

=> SI & CI :

~ *Introduction*

~ *Questions*

~ *Formulae*

~ *Tricks & Tips*

~ *Previous year questions*

=> Ratio and Proportions :

- ~ *Introduction*
- ~ *Concepts & Definitions*
- ~ *Questions*
- ~ *Formulae*
- ~ *Tricks & Tips*
- ~ *Previous year questions*

=> Probability :

- ~ *Introduction & examples*
- ~ *Experiment*
- ~ *Sample space*
- ~ *Event & its probability*
- ~ *Questions*
- ~ *Formulae*
- ~ *Tricks & tips*
- ~ *Previous year questions*

=> Permutation & Combination :

- ~ *Introduction*
- ~ *Permutations*
- ~ *Combinations*
- ~ *Questions*
- ~ *Formulae*
- ~ *Tricks & tips*
- ~ *Previous year questions*

=> Heights and Distances :

- ~ *Basics of trigonometry*
- ~ *Trigonometric identities*
- ~ *T-ratios*
- ~ *Angel of elevation & depression*
- ~ *Formulae*
- ~ *Tricks & tips*
- ~ *Previous year questions*

=> Problems on Trains :

- ~ *Introduction*
- ~ *Various types of problems on trains*
- ~ *Formulae*
- ~ *Tricks & tips*
- ~ *Previous year questions*

=> Perimeter, Volume & Area :

- ~ *Introduction*
- ~ *Results on some polygons*
- ~ *Questions*
- ~ *Formulae*
- ~ *Tricks & tips*
- ~ *Previous year questions*

=> Partnership :

- ~ *Introduction*
- ~ *Working & sleeping partners*
- ~ *Questions*
- ~ *Formulae*
- ~ *Tricks & tips*
- ~ *Previous year questions*

=> Quadratic Equations :

- ~ *Introduction*
- ~ *Methods of finding roots*
- ~ *Nature of roots*
- ~ *Questions*
- ~ *Formulae*
- ~ *Tricks & tips*
- ~ *Previous year questions*

=> Coordinate Geometry :

- ~ *Introduction*
- ~ *Cartesian system*
- ~ *Quadrants*
- ~ *Location of points*
- ~ *Questions*
- ~ *Formulae*
- ~ *Tricks & tips*
- ~ *Previous year questions*

=> Logarithms :

- ~ *Definition*
- ~ *Types*
- ~ *Properties*
- ~ *Questions*
- ~ *Formulae*
- ~ *Tricks & tips*
- ~ *Previous year questions*

=> Set Theory :

- ~ *Definition*
- ~ *Types*
- ~ *Operations*
- ~ *Questions*
- ~ *Formulae*

- ~ *Tricks & tips*
- ~ *Previous year questions*

=> **Geometry :**

- ~ *Introduction*
- ~ *Plane geometry*
- ~ *Solid geometry*
- ~ *Questions*
- ~ *Formulae*
- ~ *Tricks & tips*
- ~ *Previous year questions*

=> **Work & Wages :**

- ~ *Introduction*
- ~ *Questions*
- ~ *Formulae*
- ~ *Tricks & tips*
- ~ *Previous year questions*

=> **Square & Cube Root :**

- ~ *Square root*
- ~ *Cube root*
- ~ *Questions*
- ~ *Race*
- ~ *Introduction*
- ~ *Questions*
- ~ *Formulae*
- ~ *Tricks & tips*
- ~ *Previous year questions*

=> **Stocks & Shares :**

- ~ *Introduction*
- ~ *Some facts*
- ~ *Questions*
- ~ *Formulae*
- ~ *Tricks & tips*
- ~ *Previous year questions*

=> **Chain Rule :**

- ~ *Direct proportion*
- ~ *Indirect Proportion*

=> **Algebra :**

- ~ *Introduction & theory*
- ~ *Questions*
- ~ *Formulae & summary*
- ~ *Tricks & tips*
- ~ *Previous year questions*

ReactJS Crash Course

Topic Name : WEB DEVELOPEMENT

Sub-topic Name : REACT

Course link : <https://ineuron.ai/course/ReactJS-Crash-Course>

Course Description :-

This course will help you to grab the fundamentals of ReactJS.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => React templates
- => React states
- => React hooks
- => React context API
- => Firebase integration
- => Redux Apps

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

- => ReactJS crash course :
 - ~ ReactJS crash course
- => NaN :
 - ~ NaN
 - ~ NaN
 - ~ NaN
 - ~ NaN
 - ~ NaN
 - ~ NaN

Mega Community

Topic Name : DATA SCIENCE

Sub-topic Name : MACHINE LEARNING

Course link : <https://ineuron.ai/course/Mega-Community>

Course Description :-

This is a free community live class where multiple projects have been discussed by various mentors in the field of data science.

Course Features :-

=> Everything will be discussed with python

What you will learn :-

=> End to End data Science project

=> Tech used in industry

Requirements :-

=> Your Dedication

=> Laptop

Instructors :-

=> Sunny Bhaveen Chandra :

~ Sr. Data Scientist and lecturer at iNeuron.ai with working experience in computer vision, natural language processing and embedded systems. Hands-on experience leveraging machine learning, deep learning, transfer learning models to solve challenging business problems. Also, he has a vast interest in Robotics.

=> Sourangshu Pal :

~ Visual Computing Engineer and instructor at iNeuron.ai having 3 years of diverse experience in the discipline of visual computing with specialization in Deep Learning and Computer Graphics. Loves to analyze, process, and model visual data then interpret the insights to create actionable plans for solving challenging business problems.

=> krish naik :

~ Having 10+ years of experience in Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

=> Sudhanshu Kumar :

~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

=> Brand Measures

=> Automatic conversation AI from scratch without any framework

=> Automated machine learning +dev ops end to end with state of the art :

~ MLops Preview

=> The real machine learning project end to end

=> SQL interview question in detail

=> Mail Automation with power BI

=> Design pattern and full end to end application development

Docker

Topic Name : DEVOPS

Sub-topic Name : DOCKER

Course link : <https://ineuron.ai/course/Docker>

Course Description :-

Docker makes it easier to create, share, and operate contemporary programmes. Docker is a programme that uses containers to make it easier to construct, deploy, and manage applications.

Course Features :-

- => Source code
- => Downloadable resources
- => Quizzes
- => Completion certificate

What you will learn :-

- => Docker & its architecture
- => Docker as a service
- => Docker CLI
- => Docker Volumes
- => Port Mapping
- => Dockerizing a web application

Requirements :-

- => Prior knowledge of linux
- => A System with good internet connection
- => How the bash works
- => Interest to learn

=> Your dedication

Instructors :-

=> Sourangshu Pal :

~ Visual Computing Engineer and instructor at iNeuron.ai having 3 years of diverse experience in the discipline of visual computing with specialization in Deep Learning and Computer Graphics. Loves to analyze, process, and model visual data then interpret the insights to create actionable plans for solving challenging business problems.

Curriculum details :-

=> Docker Introduction :

- ~ Introduction
- ~ What is Docker?
- ~ Why Docker?
- ~ Benefits of Docker
- ~ What is Container?
- ~ Containers vs VM
- ~ Containers vs Image
- ~ Docker Editions
- ~ What Docker is not?
- ~ Important Terminologies
- ~ Docker Setup in Windows
- ~ Docker Setup in Linux
- ~ Docker Setup in Mac

=> Basic Usage :

- ~ Docker Basic Commands part 1
- ~ Docker Basic Commands part 2

=> Docker Run :

- ~ Docker Run Part 1
- ~ Docker Run Part 2

=> Docker Images :

- ~ Docker Images
- ~ Creating a new image
- ~ Environment variables
- ~ Commands & Entry Points

=> Docker Compose :

- ~ *Docker Compose*
- ~ *Voting Application Understanding*
- ~ *Docker Compose Versions*
- ~ *Docker Compose Networks*
- ~ *Voting Application with Docker Run*
- ~ *Voting Application with Docker Compose*

=> Docker Concepts :

- ~ *Docker Engine*
- ~ *Docker Storage*
- ~ *Docker Networking*
- ~ *Docker Registry*

Class 10th Chemistry

Topic Name : K12

Sub-topic Name : CLASS10

Course link : <https://ineuron.ai/course/Class-10th-Chemistry>

Course Description :-

The Science Syllabus is elegantly designed such that it introduces the important concepts of Science and their importance in our daily life. Class 10th is crucial and is the foundation for higher education of students. In this, the Chemistry section focuses on concepts like Chemical reactions, Acids, Bases, Salts, Metals, Non-Metals, etc.

Course Features :-

- => Self Paced Videos
- => Completion Certificate

What you will learn :-

- => Chemical reactions and equations
- => Acids, Bases and Salts
- => Metals and Non-metals
- => Carbon and its compounds
- => Periodic classification of elements

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

- => Jayant Topnani :
 - ~ Having 2+ years teaching experience and have mentored students online & offline across all boards.

Curriculum details :-

- => Ch1 Chemical reactions and eq :
 - ~ Lecture 1 : chemical reaction and equations introduction Preview
 - ~ Lecture 2 : Type of Changes in matter
 - ~ Lecture 3 : chemical reaction
 - ~ Lecture 4 : Chemical Equations
 - ~ Lecture 5 : Combination & Decomposition Reaction
 - ~ Lecture 6 : Displacement & Double Displacement Reaction
 - ~ Lecture 7 : Other Chemical Reactions
 - ~ Lecture 8 : Oxidation & Reduction
- => Ch2 Acid, base and salt :
 - ~ Lecture 1 : Introduction to acids, bases & salts Preview
 - ~ Lecture 2 : Acids & their Classification
 - ~ Lecture 3 : Preparation & Properties of Acids
 - ~ Lecture 4 : Uses Of Acids
 - ~ Lecture 5 : Bases Classification & Preparation
 - ~ Lecture 6 : Bases Properties & Uses
 - ~ Lecture 7 : Neutralization & Its Uses
 - ~ Lecture 8 : Indicators
 - ~ Lecture 9 : Strength of Acids & Bases
 - ~ Lecture 10 : Salts Introduction & Classification
 - ~ Lecture 11 : Salt Preparation & Properties
 - ~ Lecture 12 : NaCl & Bleaching Powder
 - ~ Lecture 13 : Washing Soda, Baking Soda & Plaster
- => Ch3 Metals and non-metals :
 - ~ Lecture 1 : Introduction & Overview of the chapter_2
 - ~ Lecture 2 : Metals Occurrence & Physical Properties_2
 - ~ Lecture 3 : Activity Series of Metals_2
 - ~ Lecture 4 : Chemical Properties of Metals_2 Preview
 - ~ Lecture 5 : Uses Of Metals
 - ~ Lecture 6 : Non Metal Occurrence
 - ~ Lecture 7 : Physical Properties of Non Metals
 - ~ Lecture 8 : Chemical Properties of Non Metals
 - ~ Lecture 9 : Comparative Account of Metals & Non Metals
 - ~ Lecture 10 : Interaction in Metals & Non Metals
 - ~ Lecture 11 : Ionic Bond Formation, Nature & Structure
 - ~ Lecture 12 : Covalent Bond Examples & Types
 - ~ Lecture 13 : Characteristics of Covalent Bond & Octate Rule
 - ~ Lecture 14 : Comparative Study Of Covalent & Ionic Bond

~ *Lecture 15 : Metallurgy, Alloy & Corrosion*

=> Ch4 Carbon and its compound :

~ *Lecture 1 Preview*

~ *Lecture 2*

~ *Lecture 3*

~ *Lecture 4*

~ *Lecture 5*

~ *Lecture 6*

~ *Lecture 7*

~ *Lecture 8*

~ *Lecture 9*

~ *Lecture 10*

~ *Lecture 11*

=> Ch5 Classification Elements :

~ *Lecture 1 : Periodic Classification of Elements part1*

~ *Lecture 2 : Periodic Classification of Elements part2*

Vedic Math

Topic Name : K12

Sub-topic Name : CLASS8

Course link : <https://ineuron.ai/course/Vedic-Math>

Course Description :-

This course will help you solve complex mathematical problems using Vedic Mathematics. This course is curated on a set of concepts that will help you improve your calculations to an extent where before you pick up a pen, you would find the answers by simplifying calculations into simple steps. If you despise numbers, This course will help you interactively appreciate the beauty of mathematics.

Course Features :-

- => Online Instructor-led learning
- => Practical Implementation
- => Integrate academic knowledge with the tech
- => Real-time Project
- => Live Class Recording
- => Doubt Clearing
- => Assignment in all the Module
- => Quiz in every Module
- => Career Counselling
- => Completion Certificate

What you will learn :-

- => Introduction about Vedic math's
- => Benefits of Vedic math's
- => Addition of numbers
- => Subtraction of numbers
- => Multiplication of numbers
- => Division of numbers
- => Square of a number
- => Cube of a number
- => Square root of a number
- => Cube root of a number

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Curriculum details :-

- => Introduction to VEDIC MATHS :
 - ~ What is VEDIC MATHS?
 - ~ Benefits of Vedic Maths
 - ~ Why we learn VEDIC MATHS ?
- => Basics VEDIC MATHS :
 - ~ Find the complement of 1 digit number/ 2 digit number/ 3 digit number/ any digit number?
 - ~ Tables for 9/19/29/39/129/149/.
 - ~ All from 9 and the Last From 10
 - ~ Multiplication of 2 numbers where number of digits are same in both number and sum of unit digit number is 10
 - ~ Multiplication of 2 numbers where digits are same in both numbers except unit digit number
 - ~ Multiplication with 11
 - ~ Multiplication with 12
 - ~ Universal multiplication like multiplication for following exs:- 1) $2^2 \ 2$ 3*3 3) $4^4 \ 4$ 2*3 5) $3^4 \ 6$ 2*4 7) 3^2 etc (called as URDHVA TIRYA GAMYAM)
 - ~ Square of different types of number (For example, whose unit digit /the last digit is 1/5/6/4
 - ~ Cubes of 2 digit number
- => Intermediate :
 - ~ Division of any number by 5, 8 & 98
 - ~ Division of any number by 11
 - ~ Division of any number by 12-19
 - ~ Division of any number by 25, 50 and 100

- ~ Division by factors
- ~ Percentages
- ~ Addition of odd, even series of numbers
- ~ Multiplication of numbers ending with 5
- ~ Multiplication of numbers with 15
- ~ Multiplication of whole number with mixed fractions

=> Advanced VEDIC MATHS :

- ~ Division of whole number with mixed fractions
 - ~ Addition of special fractions
 - ~ Square of any number nearer to base
 - ~ Multiplications with 9/99/999 when
- 1) Multipliers are same digit
 - 2) Less digits than multiplier
 - 3) More digits than multiplier
- ~ Different types of base multiplication for ex. $97 * 94$ (less than base 100), $14 * 12$
 - ~ Multiplication of numbers like $(42 * 46)$ considering primary & secondary base
 - ~ different (in this ex, 10 & 50 are two different base)
 - ~ Cubes of numbers closer to bases
 - ~ Division (Nikhilam method where divider is less than base number or nearer to base number)
 - ~ Quickest division by 9,99,999,9999
 - ~ Repeated digit base number squares
 - ~ Vinculum of number at Unit and tens places
 - ~ Squares by duplex method
 - ~ Square root
 - ~ Cube root

=> Application: :

~ We will make a UI where we will provide a set of questions where kids can answer those questions & check if it is correct or not/ Similarly, In the backend, they can do logic according to Vedic formula.
Plus, we will provide a hint that explains the Vedic formula/procedure to find the solution in the front end.

Complete Flutter Course - iOS Android Apps

Topic Name : MOBILE DEVELOPEMENT

Sub-topic Name : FLUTTER

Course link : <https://ineuron.ai/course/Complete-Flutter-Course---iOS-Android-Apps>

Course Description :-

Learn how to use Flutter, Google's latest mobile framework, to develop quick and beautiful mobile apps. With no prior expertise, you will rapidly learn how to construct any application with Flutter in this course. upon successful completion of this course, you will be able to create interactive and responsive applications using the flutter development kit.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Stateless widgets
- => Stateful widgets
- => Background changers
- => Randomization
- => Camera and gestures
- => API handling
- => SQLite
- => Firebase
- => BLOC in flutter

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

- => Introduction to Flutter :
 - ~ Introduction to flutter
- => Installation of Flutter :
 - ~ Flutter installation on MAC
 - ~ Flutter doctor - Do not panic
 - ~ Flutter installation for Windows
 - ~ Installing plugins for VSCode
- => First Flutter project :
 - ~ Creating first project in flutter
 - ~ Run your flutter project
 - ~ Actual hello world
- => Stateless and Stateful - 2 projects :
 - ~ Stateless and Stateful Widgets
 - ~ How to read flutter documentation
 - ~ Scaffold widget in flutter
 - ~ A stateless app in flutter
 - ~ Multi child layout in flutter
 - ~ Raised buttons in flutter
 - ~ Converting into stateless widget
 - ~ Making a stateful app

- ~ *Designing Visual part*
- ~ *Finishing stateful number app*

=> Background Changer and randomization :

- ~ *What we will create in this section*
- ~ *Stateless widget work*
- ~ *Random value generation in flutter*
- ~ *Button properties in bgchanger*

=> Dice Roller App project :

- ~ *Getting assets for dice roller flutter*
- ~ *create main dart in dice app*
- ~ *logic part of dice roller*
- ~ *Design of dice roller and assignment*

=> Tic Tac Toe App in flutter :

- ~ *Getting started with TicTacToe in flutter*
- ~ *taking main dart file for TicTacToe*
- ~ *Initialize state for Tic Tac Toe*
- ~ *playgame and reset game tictactoe*
- ~ *Winning logic for Tictactoe in flutter*
- ~ *Understand gridview in flutter*
- ~ *Final design of TicTacToe and assignment*

=> Scratch and win App in flutter :

- ~ *Scratch and win assets in flutter*
- ~ *scratch and win todos*
- ~ *rest game and lucky number in flutter*
- ~ *showall and gameplay*
- ~ *Finishing sratch and win in flutter*

=> Spanish Audio number app :

- ~ *Third pary libraries in flutter*
- ~ *Audio helper in flutter*
- ~ *defining audio methods in spanish app*
- ~ *Flinishing spanish number app in flutter*

=> Camera and Gesture :

- ~ *Reading gesture docs*
- ~ *Preparing project with imagepicker*
- ~ *methods for camera and gallery and ios fix*
- ~ *Finishup camra app in flutter*

=> Navigation and keys in flutter - 2 apps :

- ~ *Reading assignment for drawer and keys*
- ~ *Creating catogory page*
- ~ *Routing basics in flutter*
- ~ *drawer links and navigation*
- ~ *drawer app assignment*
- ~ *A signup app*
- ~ *bring in logo assets*
- ~ *Design your first input field*
- ~ *Global keys and validator*
- ~ *Collect key values in next screen*
- ~ *HomePage and assignment*

=> API handling in flutter - 2 Apps :

- ~ *introduction to API in flutter*
- ~ *passing key in stateful*
- ~ *Making a web request with Future*
- ~ *storing web response*
- ~ *getting data on screen and debug*
- ~ *Understand the API response*
- ~ *Fetching data with web*
- ~ *picking up data from JSON*
- ~ *Run the app and assignment*

=> Sqlite - A publishable App :

- ~ *Before we start this project*
- ~ *Reading the docs for database*
- ~ *adding dependencies for database*
- ~ *custom notes class part 1*
- ~ *custom notes class part 2*
- ~ *Start with database helper file*
- ~ *create table in sqlite*
- ~ *insert update and delete query*
- ~ *Get value count from database*
- ~ *creating semi list screen*
- ~ *rewriting stateful widget of detail class*
- ~ *saving notes and helper method*
- ~ *delete and UI part of details screen*
- ~ *Adding methods in listview*
- ~ *Finally done with this app*

=> Firebase and flutter - Authentication :

- ~ *Firebase for flutter*
- ~ *exploring firebase*
- ~ *Configure iOS and Android app for firebase*
- ~ *Define router in main*
- ~ *add lister to check state of login*
- ~ *Signin with email and password*
- ~ *Android X bug and signin UI*

- ~ Home page logic methods
- ~ Home page UI and link for signup
- ~ logic part of singup page
- ~ Final one on authentication

=> Firebase Database and Storage :

- ~ getting started with database and storage
- ~ stackoverflow and file structure
- ~ creating model for contact
- ~ upgrading to AndroidX and homePage
- ~ uploading image and data to firebase
- ~ UI for add screen
- ~ UI for home page and bug fix
- ~ Get values from snapshot
- ~ Phone and sms intent launch
- ~ Delete contact from firebase
- ~ Edit screen - passing id
- ~ upload new photo in editcontact
- ~ final touch to database app - contact

=> UI Challenge - WhatsApp :

- ~ Create whatsapp project and exercise files
- ~ reusable widgets
- ~ creating whatsapp title bar
- ~ creating tab bar
- ~ creating chat UI page
- ~ Design calls ui
- ~ Status screen ui

=> BLOC in flutter :

- ~ What is BLOC in flutter
- ~ Creating a flutter block app - structure
- ~ Creating BLOC pattern code in flutter
- ~ Creating UI for BLOC project and calls

Sensor Fault Prediction

Topic Name : DATA SCIENCE

Sub-topic Name : MACHINE LEARNING PROJECT

Course link : <https://ineuron.ai/course/Sensor-Fault-Prediction>

Course Description :-

The Air Pressure System (APS) is a critical component of a heavy-duty vehicle that uses compressed air to force a piston to provide pressure to the brake pads, slowing the vehicle down. The benefits of using an APS instead of a hydraulic system are the easy availability and long-term sustainability of natural air. This is a Binary Classification problem, in which the affirmative class indicates that the failure was caused by a certain component of the APS, while the negative class indicates that the failure was caused by something else.

Course Features :-

- => Do Everything In Industry Grade Lab
- => Learn As Per Your Timeline
- => Hands-On Industry Real-Time Projects.
- => Self Paced Learning
- => Dashboard Access
- => Course Materials
- => Assignments

What you will learn :-

- => Real Time Projects
- => Sensor Fault Prediction
- => Understand MLOPS best practices
- => EDA and Feature engineering on sensors reading generated by vehicle air pressure system
- => Industry standard Machine Learning development
- => Implementation of Continuous Training
- => Deploying Machine Learning Model as an endpoint API
- => Continuous Monitoring
- => Model Management

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

=> Avnish Yadav :

~ 3+ years of experience in various domains such as data scientist, data analyst, database developer, and .net developer. Implemented various sophisticated business requirements, performed an analysis of various data to capture insights and hidden patterns. Fine and tuned various regression and classification-based algorithms for prediction. Implemented various ETL pipelines to fulfil the business requirement. Automated various machine learning pipelines such as data loading, data cleaning, data validation, model selection, model tuning, and model monitoring pipeline. Implemented machine learning pipeline in azure machine learning studio. I have a keen interest to solve complicated machine learning problems to fulfil business requirements.

Curriculum details :-

=> Welcome to the Course :

- ~ Course Overview
- ~ Dashboard Introduction

=> Sensor Fault Prediction :

- ~ Introduction of Instructor
- ~ Project Overview
- ~ End Notes
- ~ Problem Description
- ~ Understand the application scope
- ~ Tour to existing solution
- ~ End Notes
- ~ Solution Description
- ~ Notebook Walkthrough
- ~ Tour to Architecture diagram

- ~ cost involved
- ~ End Notes
- ~ Structure overview
- ~ Data Ingestion
- ~ Data Validation
- ~ Data Transformation
- ~ Model Training and Tunning
- ~ Model Evaluation
- ~ Model Pusher
- ~ Training Pipeline
- ~ Schedule Training pipeline to Update/Create Model
- ~ Deploy prediction endpoint API
- ~ Instance Prediction
- ~ Batch Prediction
- ~ Performance of Model
- ~ Model Management
- ~ Governance Capability
- ~ Traceability and Verifiability and Auditability
- ~ Conclude the project
- ~ Assignments + Links point out

DSA for FAANG preparation with Python and JavaScript

Topic Name : DATA STRUCTURE

Sub-topic Name : DSA MASTERS

Course link : <https://ineuron.ai/course/DSA-for-FAANG-preparation-with-Python-and-JavaScript>

Course Description :-

A comprehensive chase to excel any interview for the Data Structures and Algorithms. This course has been specifically designed to provide resources that would assist you in cracking problem-solving interviews. The presented problems in the course would suffice to look on to positive outcomes in the interviews.

Course Features :-

- => Free LCO DSA Bundle
- => 18 hrs live support all seven day
- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Analysis in Algorithms
- => Data Structure Introduction
- => Array Data Structure
- => Interview Question on array
- => Recursion in depth
- => Divide and Conquer algorithm
- => Applications of Divide and Conquer
- => Linked List Data Structure
- => Interview Question on Linked List
- => Circular Linked List
- => Doubly Linked List
- => Skip List
- => Stack and Queue
- => Interview Question on Stack and Queue
- => Hashing Data Structure
- => Collision Resolution Techniques
- => Tree Data Structure
- => Tree Traversal
- => Binary Search Tree
- => Height Balanced Tree: AVL Tree

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Priya Bhatia :

~ Expertise in data structure competitive programming and solving analytical problems and implementing data structure algorithm in multiple programming language. I have done my M.Tech in Artificial Intelligence at IIT Hyderabad and have an experience of implementation in multiple projects.

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

=> Anurag Tiwari :

~ Hey, I am Anurag Tiwari, a developer at learncodeonline. We have built a scalable system handled by 300K users on a daily basis. I'm a software developer who constantly seeks innovative solutions to everyday problems. I have been teaching students for the last 24 months.

=> Shishir Chandra :

~ Shishir Chandra currently works with Target Platform engineer team as Director of engineering in distributed processing systems space. Shishir has a wide variety of experience in building and scaling up low latency and high throughput systems in various cloud stacks in companies like Adobe, Apple, Cohesity and Imobi in the past. Shishir's area of expertise is in distributed platforms, databases, transactional and realtime systems, big data processing, Microservices and streaming systems and distributed files systems. Shishir is also an open source contributor with elastic search.

Curriculum details :-

=> Introduction :

~ Course Overview

=> Analysis in Algorithms :

~ Why we need Data structures and algorithms
~ Introduction to algorithms and its analysis : Time and Space Complexity
~ Asymptotic Notation: Big O, Omega and Theta Notation
~ Recurrence Relation Solving: Substitution, Recursive Tree and Master's Theorem

=> Data Structure Introduction :

~ Memory Process - Stack and Heap
~ Physical and logical data structures
~ Abstract data types

=> Array Data Structure :

~ Introduction to arrays
~ Concept of 1D and 2D array (row major order and column major order)
~ Searching algorithm: linear, binary, ternary search
~ Concept of inplace and outplace sorting algorithm
~ Concept of stable and unstable sorting algorithm
~ Sorting algorithm: comparison(selection, bubble, insertion, quicksort, mergesort, heapsort, shellsort)
~ Sorting algorithm: Non-comparison(count sort, bucket sort, radix sort)

=> Interview Question on array :

~ Rotation of an array
~ Finding of missing number in an array
~ Division of two integers without using division operator
~ Search in rotated array
~ Target triplet
~ Stock buy sell to maximize profit

=> Recursion in depth :

~ Introduction to recursion
~ Tracing the recursion tree
~ Types of recursion
~ Complex recursion tree
~ Classic Tower of Hanoi problem

=> Divide and Conquer algorithm :

~ Introduction to Divide and Conquer

=> Applications of Divide and Conquer :

~ Finding of maxima and minima
~ Finding of power of an element
~ Binary Search
~ MergeSort
~ QuickSort
~ Selection Procedure
~ Finding of number of inversions
~ Strassens' matrix multiplication

=> Linked List Data Structure :

~ Introduction to linked list
~ Insertion of a node(beginning, end and at any position) in linked list
~ Deletion of a node(beginning, end and at any position) in linked list
~ Searching of a node in linked list

=> Interview Question on Linked List :

~ Reversal of a node in linked list
~ Count of all nodes in linkedlist
~ Floyd's cycle detection algorithm
~ Merge two linked list

=> Circular Linked List :

~ Circular Linked List Theory
~ Insertion of a node in circular linked list
~ Traversal of a node in circular linked list
~ Deletion of a node in circular linked list
~ Count of number of nodes in circular linked list
~ Conversion of linked list to circular linked list

=> Doubly Linked List :

~ Doubly Linked List Theory
~ Insertion of a node in doubly linked list
~ Traversal of a node in doubly linked list
~ Deletion of a node in doubly linked list

=> Skip List :

~ Introduction to skip list
~ Build-in skip list
~ Search in skip list
~ Insertion in skip list

~ *Deletion in skip list*

=> Stack and Queue :

- ~ *Stack: Push and Pop operation*
- ~ *Implementation of Stack using array and linked list*
- ~ *Queue concept theory*
- ~ *Implementation of Queue using array and linked list*
- ~ *Circular Queue theory*
- ~ *Implementation of Circular Queue*

=> Interview Question on Stack and Queue :

- ~ *Stack using queue conceptual understanding*
- ~ *Implementation of stack using queue*
- ~ *Queue using stack conceptual understanding*
- ~ *Implementation of queue using stack*
- ~ *Valid brackets*
- ~ *Stock Spanning*

=> Hashing Data Structure :

- ~ *Introduction to Hashing Data Structure*
- ~ *Hash Function and its types*

=> Collision Resolution Techniques :

- ~ *Chaining*
- ~ *Open Addressing: Linear Probing, Quadratic Probing, Double Hashing, Perfect Hashing, Consistent Hashing*
- ~ *Application: Bloom Filters*
- ~ *Two Sum Problem*

=> Tree Data Structure :

- ~ *Introduction to Binary Tree*
- ~ *Complete Binary Tree and almost complete binary tree*
- ~ *Full binary tree and representation using array and linked list*

=> Tree Traversal :

- ~ *Introduction to tree traversal*
- ~ *Inorder Traversal*
- ~ *Preorder Traversal*
- ~ *Postorder Traversal*

=> Binary Search Tree :

- ~ *Introduction to Binary Search Tree*
- ~ *Insertion and Deletion in BST*
- ~ *Inorder traversal in BST gives sorted array*
- ~ *Searching in Binary Search Tree*
- ~ *Deletion in Binary Search Tree*

=> Height Balanced Tree: AVL Tree :

- ~ *Introduction: Why AVL Tree?*
- ~ *Creation of an AVL Tree*
- ~ *Insertion in AVL Tree*
- ~ *Searching in AVL Tree*
- ~ *Deletion in AVL Tree*

=> Height Balanced Tree: Red Black Tree :

- ~ *Introduction: Why Red Black Tree?*
- ~ *Properties of Red Black Tree*
- ~ *Creating of Red Black Tree*
- ~ *Insertion Rules in Red Black Tree*
- ~ *Searching in Red Black Tree*
- ~ *Deletion in Red Black Tree*

=> B and B+ Tree: Usage in Databases :

- ~ *Creation of B and B+ Tree*
- ~ *Insertion in B and B+ Tree*
- ~ *Searching in B and B+ Tree*
- ~ *Deletion in B and B+ Tree*

=> Interview Question on Tree :

- ~ *Checking of whether the tree is symmetric or not*
- ~ *Count of number of possible BSTs in a given number of nodes*
- ~ *Catalan number concept to find the number of BST*
- ~ *Level order traversal of a tree*
- ~ *Flip or inverse of a binary tree*
- ~ *Same tree problem*
- ~ *Inorder iterator*
- ~ *Binary Tree Zigzag level order traversal*

=> Graph Traversal Algorithms :

- ~ *Introduction to Graph Traversal Algorithms*
- ~ *Introduction to Depth First Search*
- ~ *DFS Psuedocode and illustration using an example*
- ~ *DFS Coding Implementation*
- ~ *Introduction to Breadth First Search*
- ~ *BFS Psuedocode and illustration using an example*

=> Interview Questions on Graph :

- ~ *Clone of a graph*
- ~ *DFS and Cycle detection with University course problem*
- ~ *Island problem*

=> Heap Data Structure :

- ~ *Introduction to Heap Data Structure*
- ~ *Maxheap and Minheap Overview*

- ~ Insertion in Minheap
- ~ Deletion in Minheap
- ~ Creation of Minheap
- ~ Mathematical derivation to analyse the complexity of creation of minheap
- ~ HeapSort algorithm and why it is not stable algorithm

=> Interview Based Question on Heap Data Structure :

- ~ Maximum Product of three numbers in an array
- ~ Finding of K-closest points from an origin

=> Greedy Algorithm :

- ~ Introduction to greedy algorithm

=> Application of greedy algorithm :

- ~ Fractional Knapsack Problem
- ~ Minimum Spanning Tree: Kruskal and Prim's Algorithm
- ~ Single Source Shortest Path: Dijkstra's algorithm
- ~ Huffman Coding
- ~ Optimal Merge Pattern
- ~ Job Sequencing with Deadline

=> Dynamic Programming :

- ~ Introduction to Dynamic Programming
- ~ Overlapping subproblem in dynamic programming
- ~ Tabulation in dynamic programming
- ~ Memoization in dynamic programming

=> Application of Dynamic Programming :

- ~ Fibonacci Series
- ~ Longest Common Subsequence
- ~ 0/1 Knapsack Problem
- ~ Sum of subset
- ~ All Pair Shortest Path: Floyd Warshall Algorithm
- ~ Bellman Ford Algorithm

=> Interview Problems on Dynamic Programming :

- ~ Knapsack - Coke, Pepsi, Redbull
- ~ Largest sum of subset
- ~ Coin change problem
- ~ Largest sum
- ~ Minimum path to reach target

=> String Matching Algorithms :

- ~ Introduction to String matching algorithms
- ~ Naive String Matching algorithms
- ~ Rabin Karp Algorithm
- ~ Kuth-Morris-Pratt(KMP) Pattern Matching

=> Interview Problems on String :

- ~ Word in a sentence
- ~ Inplace duplicates
- ~ Longest substring
- ~ Palindrome makes and breaks

=> NP-Hard and NP-Complete Problem :

- ~ NP-Hard Problem
- ~ NP-Complete Problem

=> Approaching Design :

- ~ Understanding and clarification
- ~ Business usecase of the problem and knowing the consumers
- ~ Iron out the Functional requirements
- ~ Importance of discussing the trade-offs based on the usecase in picture
- ~ Mastering the art of selling design
- ~ Data model approaches and fitment
- ~ LLD modelling and future readiness of design
- ~ Explaining the features of design like adherence to proper design patterns

=> Introduction to System Design :

- ~ Introduction to system design
- ~ Importance of architecture
- ~ Distinction between HLD and LLD
- ~ Importance of data modelling
- ~ Importance of documentation in design

=> Practicing some real designs :

- ~ Rate limiting
- ~ Uber riders app
- ~ Whatsapp messaging
- ~ food delivery app building
- ~ Booking app building
- ~ Video streaming systems
- ~ Q&A

Class 10th Biology

Topic Name : K12

Sub-topic Name : CLASS10

Course link : <https://ineuron.ai/course/Class-10th-Biology>

Course Description :-

The Science Syllabus is elegantly designed such that it introduces the basic concepts of Science and its importance in our daily life. It will make the foundation strong for the higher classes. The Biology section focuses on concepts like food, bodily movements, surroundings of living organisms, garbage, etc.

Course Features :-

- => Self Paced Videos
- => Completion Certificate

What you will learn :-

- => Life processes
- => Control and coordination
- => How do organisms reproduce
- => Heredity and evolution
- => Our environment
- => Sustainable management of natural resources

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Dr Nishtha Jain :

~ I am a doctor by profession but a teacher by passion. I have been into the teaching profession for the last 3 years. I have been and am still a mentor for various courses which include technical as well as non-technical ones. These include MS-Excel, Tableau, Computer basics, Biology, English, etc. I love to learn, explore and share my knowledge to whatever extent possible. Being an ardent educator, I have always helped all my students and will continue to do the same.

Curriculum details :-

=> Life processes :

- ~ Lecture 1 : Introduction and Types of life processes Preview
- ~ Lecture 2 : Nutrition, Modes of nutrition and Dental caries Preview
- ~ Lecture 3 : Respiration Preview
- ~ Lecture 4 : Excretion (in humans and plants), Haemodialysis and Organ donation
- ~ Lecture 5 : Transportation (in humans)
- ~ Lecture 6 : Blood Pressure, Transportation in Plants
- ~ Lecture 1 - NCERT Solutions
- ~ Lecture 2 - NCERT Solutions
- ~ Lecture 3 - NCERT Solutions
- ~ Lecture 4 - NCERT Solutions
- ~ Lecture 5 - NCERT Solutions
- ~ Lecture 6 - NCERT Solutions
- ~ Lecture 7 - NCERT Solutions
- ~ Lecture 8 - NCERT Solutions

=> Control and coordination :

- ~ Lecture 1 : Introduction, Nervous System
- ~ Lecture 2 : Human brain, Spinal cord
- ~ Lecture 3 : Coordination in Plants
- ~ Lecture 4 : Hormones - Plants and Animals
- ~ Lecture 1 - NCERT Solutions
- ~ Lecture 2 - NCERT Solutions
- ~ Lecture 3 - NCERT Solutions
- ~ Lecture 4 - NCERT Solutions
- ~ Lecture 5 - NCERT Solutions
- ~ Lecture 6 - NCERT Solutions
- ~ Lecture 7 - NCERT Solutions

=> How do organisms reproduce :

- ~ Lecture 1 : Reproduction and its types
- ~ Lecture 2 : Types of Asexual Reproduction
- ~ Lecture 3 : Sexual Reproduction in Plants
- ~ Lecture 4 : Sexual Reproduction in Humans
- ~ Lecture 5 : Menstrual Cycle and Contraceptive methods
- ~ Lecture 1 - NCERT Solutions

- ~ Lecture 2 - NCERT Solutions
- ~ Lecture 3 - NCERT Solutions
- ~ Lecture 4 - NCERT Solutions
- ~ Lecture 5 - NCERT Solutions
- ~ Lecture 6 - NCERT Solutions

=> Heredity and evolution :

- ~ Lecture 1 : Introduction
- ~ Lecture 2 : Mendel's Laws of Inheritance
- ~ Lecture 3 : Sex determination, Evolution
- ~ Lecture 4 : Speciation, Fossils
- ~ Lecture 1 - NCERT Solutions
- ~ Lecture 2 - NCERT Solutions
- ~ Lecture 3 - NCERT Solutions
- ~ Lecture 4 - NCERT Solutions
- ~ Lecture 5 - NCERT Solutions
- ~ Lecture 6 - NCERT Solutions
- ~ Lecture 7 - NCERT Solutions
- ~ Lecture 8 - NCERT Solutions
- ~ Lecture 9 - NCERT Solutions
- ~ Lecture 10 - NCERT Solutions
- ~ Lecture 11 - NCERT Solutions

=> Our environment :

- ~ Lecture 1 : Environment, Ecosystem, Food Chain, Ecosystem components, Trophic levels, Law of energy transfer
- ~ Lecture 2 : Producers, Consumers, Decomposers, Effect of human activities on the environment, Biodegradable and Non-biodegradable substances
- ~ Lecture 1 - NCERT Solutions
- ~ Lecture 2 - NCERT Solutions
- ~ Lecture 3 - NCERT Solutions
- ~ Lecture 4 - NCERT Solutions
- ~ Lecture 5 - NCERT Solutions
- ~ Lecture 6 - NCERT Solutions

=> Sustainable management of natural resources :

- ~ Lecture 1 : Natural Resources and their types, Artificial Resources, 5 'R's, Forests and Wildlife
- ~ Lecture 2 : Forest stakeholders, Bishnoi Community, Management of Forests
- ~ Lecture 3 : Water, Harvesting of water, Coal and Petroleum, Conservation of natural resources

Deep Learning With Computer Vision and Advanced NLP

Topic Name : DATA SCIENCE

Sub-topic Name : DEEP LEARNING

Course link : <https://ineuron.ai/course/Deep-Learning-With-Computer-Vision-and-Advanced-NLP>

Course Description :-

Deep Learning is a subfield of machine learning concerned with algorithms inspired by the structure and function of the brain called artificial neural networks. It is a function that imitates the workings of the human brain in processing data and creating patterns for use in decision making. Learn Deep Learning, Transfer Learning and Neural Networks using the latest frameworks. Become a Deep Learning Guru!

Course Features :-

- => Deep Learning
- => Natural Language processing
- => Computer Vision
- => Course Certificate
- => One to One Resume Discussion
- => Doubt Clearing session
- => Email Support
- => All 7 Days in a week Skype Support
- => Career Guidance

What you will learn :-

- => Advance NLP with deep-learning overview.
- => TensorFlow Installation.
- => Pytorch.
- => Neural Network.
- => CNN overview
- => Advance Computer Vision Part 1.
- => Advance computer Vision Part 2.
- => ChatBot.
- => Text processing
- => Spacy.
- => NLP terminology.
- => RNN
- => Attention Based model.
- => Hardware Setup GPU.
- => Transfer Learning in NLP.
- => Mini NLP Project.
- => Deployment of Model and Performance tuning.
- => NLP Transfer learning project with deployment and integration with UI.
- => NLP end to end project with architecture and deployment.
- => NLP project end to end with deployment in various cloud and UI integration.
- => Computer Vision Project.

Requirements :-

- => Dedication
- => Computer with i3 processor and internet

Instructors :-

=> krish naik :

~ Having 10+ years of experience in Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

=> Sudhanshu Kumar :

~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

=> Introduction

=> Advance NLP with deep-learning overview :

- ~ *Computational Linguistic*
- ~ *History of NLP*
- ~ *Why NLP*
- ~ *Use of NLP*

=> TensorFlow Installation :

- ~ *Tensorflow Installation 2.0*
- ~ *Tensorflow Installation 1.6 with virtual environment*
- ~ *TensorFlow 2.0 function*
- ~ *Tensorflow 2.0 neural network creation*
- ~ *Tensorflow 1.6 functions*
- ~ *Tensorflow 1.6 neural network and its functions*
- ~ *Keras Introduction*
- ~ *Keras in-depth with neural network creation*
- ~ *Mini project in Tensorflow*

=> Pytorch :

- ~ *Pytorch installation*
- ~ *Pyrotorch functional overview*
- ~ *Pytorch neural network creation*

=> Neural Network :

- ~ *A Simple Perception Preview*
- ~ *Neural Network overview and its use case Preview*
- ~ *Various Neural Network architect overview*
- ~ *Use case of Neural Network in NLP and computer vision*
- ~ *Multilayer Network*
- ~ *Loss Functions*
- ~ *The Learning Mechanism*
- ~ *Optimizers*
- ~ *Forward and Backward Propagation*
- ~ *Gradient Descent*

=> CNN overview :

- ~ *CNN definition and various CNN based architecture*
- ~ *End to End CNN network training*
- ~ *Deployment in Azure*
- ~ *Cloud performance tuning of CNN network*

=> Advance Computer Vision Part 1. :

- ~ *GAN*
- ~ *Generative Model Using GAN*
- ~ *BERT*
- ~ *Semi-Supervised learning using GAN*
- ~ *Restricted Boltzmann Machine (RBM) and Autocoders*
- ~ *CNN Architectures*
- ~ *LeNet-5*
- ~ *AlexNet*
- ~ *GoogleNet*
- ~ *VGGNet*
- ~ *ResNet*
- ~ *SSD*
- ~ *SSD lite*
- ~ *Faster R CNN*

=> Advance computer Vision Part 2. :

- ~ *SCNN*
- ~ *Masked R-CNN*
- ~ *Xception*
- ~ *SENet*
- ~ *Facenet*
- ~ *Implementing a ResNet 34 CNN using Keras*
- ~ *Pretrained Models from Keras*
- ~ *Pretrained Models for Transfer Learning*

=> ChatBot :

- ~ *Intents and Entities*
- ~ *Fulfillment and integration*
- ~ *Chatbot using Microsoft bot builder and LUIS, development to Telegram, Skype*
- ~ *Chatbot using Microsoft bot builder and LUIS, development to Telegram, Skype*
- ~ *Chatbot using Amazon Lex, deployment to Telegram, Skype*
- ~ *Chatbot using RASA NLU, deployment to Telegram , Skype*
- ~ *Semantic Segmentation*
- ~ *Classification and Localisation*
- ~ *TensorFlow Object Detection*
- ~ *You Only Look Once (YOLO)*

=> Text processing :

- ~ *Importing Text*
- ~ *Web Scrapping*
- ~ *Text Processing*
- ~ *Understanding Regex*
- ~ *Text Normalisation*
- ~ *Word Count*
- ~ *Frequency Distribution*
- ~ *Text Annotation*

- ~ Use of Annotator
- ~ String Tokenization
- ~ Annotator Creation
- ~ Sentence processing
- ~ Lemmatization in text processing
- ~ POS
- ~ Named Entity Recognition
- ~ Dependency Parsing in text
- ~ Sentimental Analysis

=> Spacy :

- ~ Spacy Overview
- ~ Spacy function
- ~ Spacy function implementation in text processing
- ~ POS tagging, challenges and accuracy
- ~ Entities and named entity Recognition, interpolation, Language models

=> NLP terminology :

- ~ Morphology and Diversity
- ~ Ambiguity and Paradigms
- ~ Structures and meanings
- ~ Lexical Knowledge, Network Metaphors and co-references
- ~ Lexical Ambiguity
- ~ Polysemy and homonymy
- ~ Coreference Resolution
- ~ Anaphora and cataphora resolution
- ~ Multi-sentential resolution
- ~ Humans and Ambiguity
- ~ Machines and ambiguity
- ~ Co-occurrence and distributional similarity
- ~ Similarity and relatedness
- ~ Knowledge graphs and repositories
- ~ Computational Linguistics
- ~ Word embeddings and co-occurrence vectors
- ~ Word Sim353 Dataset examples
- ~ Word2vec
- ~ Part of speech tagging

=> RNN :

- ~ Recurrent Neural Networks
- ~ Long Short Term Memory (LSTM)
- ~ Bi LSTM
- ~ GRU implementation
- ~ Building a Story writer using character level RNN

=> Attention Based model :

- ~ Seq 2 Seq
- ~ Encoders and Decoders
- ~ Attention Mechanism
- ~ Attention Neural Networks
- ~ Self Attention

=> Hardware Setup GPU :

- ~ GPU Introduction
- ~ Various type of GPU configuration
- ~ GPU provider and its pricing
- ~ Paperspace GPU setup
- ~ Running model in GPU

=> Transfer Learning in NLP :

- ~ Introduction to transformers
- ~ BERT Model
- ~ ELMo Model
- ~ GPT1 Model
- ~ GPT2 Model
- ~ ALBERT Model
- ~ DistilBERT Model

Project details :-

=> NLP project end to end with deployment in various cloud and UI integration :

- ~ Topic Modeling
- ~ Word sense disambiguation
- ~ Text to speech
- ~ Keyword Spotting
- ~ Document Ranking
- ~ Text Search (with Synonyms)
- ~ Language Modeling
- ~ Spam Detector
- ~ Image Captioning

=> Mini NLP project :

- ~ Machine Translation
- ~ Abstractive text summarization
- ~ Keyword spotting
- ~ Language modelling
- ~ Document summarization

=> Deployment of model and performance tuning :

- ~ Deep learning model deployment strategies
- ~ Deep learning project architecture

- ~ Deep learning model deployment phase
- ~ Deep learning model retraining phase
- ~ Deep learning model deployment in aws
- ~ Deep learning model deployment in azure
- ~ Deep learning model deployment in gcloud

=> Nlp transfer learning project :

- ~ Deployment and integration with ui machine translation
- ~ Question answering (like chat bot)
- ~ Sentiment analysis imdb
- ~ Text search (with synonyms)
- ~ Text classifications
- ~ Spelling corrector
- ~ Entity (person, place or brand) recognition
- ~ Text summarization
- ~ Text similarity (paraphrase)
- ~ Topic detection
- ~ Language identification
- ~ Document ranking
- ~ Fake news detection
- ~ Plagiarism checker
- ~ Text summarization extractive
- ~ Text summarization abstractive

=> NLP end to end project with architecture and deployment :

- ~ Movie review using bert
- ~ Ner using bert
- ~ Pos bert
- ~ Text generation gpt 2
- ~ Text summarization xlnet
- ~ Abstract bert
- ~ Machine Translation
- ~ Nlp text summarization custom
- ~ Keras/tensorflow
- ~ Language identification
- ~ Text classification using fast bert
- ~ Neuralcore
- ~ Detecting fake text using gltr with bert and gpt2
- ~ Fake news detector using gpt2
- ~ Python plagiarism checker type a message
- ~ Question answering

=> Computer Vision Project :

- ~ Traffic Surveillance System
- ~ Object identification
- ~ Object tracking
- ~ Object classification
- ~ Tensorflow object detection
- ~ Image to text processing
- ~ Speech to speech analysis
- ~ Vision based attendance system

Data Structure and Algorithm Foundation

Topic Name : DATA STRUCTURE

Sub-topic Name : DSA MASTERS

Course link : <https://ineuron.ai/course/Data-Structure-and-Algorithm-Foundation>

Course Description :-

A computer program is a collection of instructions to perform a specific task. For this, a computer program may need to store data, retrieve data, and perform computations on the data. A data structure is a named location that can be used to store and organize data and an algorithm is a collection of steps to solve a particular problem. Learning data structures and algorithms allow us to write efficient and optimized computer programs. Data Structure is a way of collecting and organizing data in such a way that we can perform operations on these data in an effective way.

Course Features :-

- => Lifetime Dashboard
- => Free Course
- => Certificate
- => Assignment
- => Quiz

What you will learn :-

- => Data structure and algorithm
- => Use of data structure
- => Practical implementation
- => Logical ability

Requirements :-

- => Computer with Internet Connectivity
- => Basic programming understanding

Instructors :-

=> Priya Bhatia :

~ Expertise in data structure competitive programming and solving an analytical problems and implementing data structure algorithm in multiple programming language. I have done my M.Tech in Artificial Intelligence at IIT Hyderabad and have an experience of implementation in multiple projects.

Curriculum details :-

- => Introduction about Data Structure and Algorithms (Hindi) :
 - ~ Introduction Preview
- => Analysis in Data Structure Algorithms (Hindi)
- => Introduction to DS Algo Analysis Part 2 (Hindi)
- => Asymptotic Notation : Discussion about theta Notation
- => Big O Notation in DS&Algo (Hindi)
- => Omega Notation in DS&ALGO (Hindi)
- => Recurrence Relation Solving : Master's Theorem
- => Recurrence Relation Solving-Substitution method
- => Recursive Tree Method DSA - (Hindi)
- => Introduction to Divide and Conquer DSA - (Hindi)
- => Binary Search Part 1 - Data Structure and Algorithm Hindi
- => Binary Search Part 2 Data Structure and Algorithm - Hindi)
- => Mergesort Part 1 - Data Structure and Algorithm | Hindi
- => Mergesort Part 2 Data Structure and Algorithm (Hindi)
- => Mergesort Part 3 Data Structure and Algorithm (Hindi)
- => Introduction to Quicksort Algorithm | Data Structure and Algorithm | Hindi
- => Implementation of QuickSort | Data Structure and Algorithm (Hindi)
- => Recurrence Relation of Quicksort Algorithm | Data Structure and Algorithm | Hindi
- => Problem1 based on Quicksort | Data Structure and Algorithm | Hindi
- => Problem2 based on Quicksort | Data Structure and Algorithm

=> Selection Procedure Algorithm

=> Recurrence Relation of selection procedure | Data Structure and Algorithm | Hindi

=> Finding of Maxima and Minima Using DAC | Data Structure and Algorithm | Hindi

Linux

Topic Name : DEVOPS

Sub-topic Name : LINUX

Course link : <https://ineuron.ai/course/Linux>

Course Description :-

This Linux course looks at the tools and techniques that Linux system administrators and end-users use on a daily basis to complete their tasks in a Linux environment.

Course Features :-

- => Source Code
- => Downloadable Resources
- => Quiz Questions
- => Completion Certificate

What you will learn :-

- => Linux Introduction
- => Setting up Our Linux Space
- => Linux Concepts
- => Package Management
- => Linux Commands
- => Working with Terminal
- => Permissions & Security

Requirements :-

- => A system with Internet Connection
- => Your dedication

Instructors :-

=> Sourangshu Pal :

~ Visual Computing Engineer and instructor at iNeuron.ai having 3 years of diverse experience in the discipline of visual computing with specialization in Deep Learning and Computer Graphics. Loves to analyze, process, and model visual data then interpret the insights to create actionable plans for solving challenging business problems.

Curriculum details :-

=> Linux Introduction :

- ~ Introduction to Linux Preview
- ~ What is Linux
- ~ Important Pieces in Linux
- ~ Features of Linux
- ~ Evolution of Linux
- ~ Differences between Windows and Linux

=> Setting up Our Linux Space :

- ~ Downloading Necessary tools Preview
- ~ Installing Ubuntu in Windows
- ~ What is SSH?
- ~ Install SSH Clients
- ~ Setting up SSH in Ubuntu VM
- ~ How to do SSH to your Ubuntu VM?
- ~ Setting Up Passwordless SSH

=> Linux Concepts :

- ~ What is Kernel Preview
- ~ Types of Kernel
- ~ What is Shell
- ~ Types of Shell
- ~ Distro in Linux
- ~ Linux Boot Process
- ~ File System
- ~ RunLevels in Linux
- ~ Filetypes of Linux

=> Package Management :

- ~ Package Management
- ~ Package Managers & DPKG
- ~ Working with APT & APT GET
- ~ Apt-get Advanced Part 1
- ~ Apt-get Advanced Part 2

=> Linux Commands :

- ~ *Linux Commands Part1*
- ~ *Linux Commands Part2*
- ~ *Linux Commands Part3*
- ~ *Linux Commands Part4*
- ~ *Cat Command Usages*

=> Working with Terminal :

- ~ *File Archival*
- ~ *File Compression*
- ~ *Files and Patterns Search*
- ~ *Input-Output Redirection*
- ~ *Working with Vi Editor*
- ~ *Advanced Vi Editor Part 1*
- ~ *Advanced Vi Editor Part 2*

=> Permissions & Security :

- ~ *Types of Account in Linux*
- ~ *User Management*
- ~ *Group Management*
- ~ *Files Access Controls*
- ~ *Linux File Permissions*
- ~ *Modifying File Ownership*
- ~ *Sudoers in Linux*
- ~ *Cronjobs*
- ~ *SCP*
- ~ *Special Permissions*
- ~ *System Management*
- ~ *System tools*
- ~ *Hard link and Soft link*
- ~ *Aliasing in Linux*
- ~ *Creating users in Multiple ways*

=> Linux in AWS Cloud- Deploy an App in EC2 :

- ~ *Launching an Ubuntu VM and SSH Setup*
- ~ *Package installation in VM*
- ~ *Running our Calculator App*
- ~ *Gunicorn & Nginx Setup*
- ~ *Creating a Gunicorn Service*
- ~ *Attaching an Elastic IP*
- ~ *Attaching OpenSSL Certificates for HTTPS*

OpenCV

Topic Name : DATA SCIENCE

Sub-topic Name : COMPUTER VISION

Course link : <https://ineuron.ai/course/OpenCV>

Course Description :-

OpenCV (Open Source Computer Vision Library) is an open-source computer vision and machine learning software library. This course will guide you through your first steps in studying computer vision and artificial intelligence (AI) using OpenCV. You'll learn about Image & Video Manipulation, Image Enhancement, Filtering, Edge Detection, Object Detection, and Tracking, among other topics.

Course Features :-

- => Source Code
- => Downloadable resources
- => Assignments
- => Quizzes
- => Completion certificate
- => Detailed discussion on every topic

What you will learn :-

- => Basics to advance level of OpenCV
- => Image annotation
- => Mouse click events
- => Image processing
- => Feature matching
- => Corner detection and many more

Requirements :-

- => No prior knowledge in OpenCV
- => Basic knowledge in Python programming
- => A system with a decent internet connection
- => Dedication

Instructors :-

- => Ashish Kushwaha :
 - ~ Worked in various Machine Learning, Deep Learning, Data Science and Image Processing projects. he has expertise in Python Programming.
 - Currently he is working as a freelancer & tutor & teaching many students from different regions across the globe.

Curriculum details :-

- => OpenCV basics :
 - ~ Installation of OpenCV Preview
 - ~ Read and display images
 - ~ Pycharm IDE installation
 - ~ Read the live video feed from webcam and display
 - ~ Saving an image file
 - ~ Saving a video file
 - ~ Image resizing and rescaling
- => Image annotation :
 - ~ Drawing a line on the image Preview
 - ~ Drawing a circle on the image
 - ~ Draw geometric shapes on images
 - ~ Write text on image
 - ~ Display the FPS on image
- => Mouse click events :
 - ~ What is mouse click events?
 - ~ How to use mouse click events?
 - ~ Getting the coordinates of the mouse click events
 - ~ Use mouse as a paint brush
 - ~ Using mouse to change the colors
- => Image processing :
 - ~ Changing color spaces (BGR2RGB, Grey scale, HSV and etc.)
 - ~ Geometric transformation of the images
 - ~ Scaling
 - ~ Translation

- ~ *Warning*
- ~ *Rotation*
- ~ *Affine transformation*
- ~ *Perspective transformation*
- ~ *Image threshold*
- ~ *Smoothing images*
- ~ *Image gradients*
- ~ *Canny edge detection*
- ~ *Contours in OpenCv*
- ~ *Histograms*
- ~ *Template matching*
- ~ *Hough line transform*
- ~ *Hough circle transform*
- ~ *Cascades*
- ~ *Image segmentation with Watershed algorithm*

=> Advanced OpenCv :

- ~ *Corner detection*
- ~ *SIFT, SURF, FAST, BRIEF, ORB*
- ~ *Feature matching*
- ~ *Feature Matching + homograph*
- ~ *Image denoising*
- ~ *Image inpainting*

Explainable AI

Topic Name : DATA SCIENCE

Sub-topic Name : MACHINE LEARNING

Course link : <https://ineuron.ai/course/Explainable-AI>

Course Description :-

Explainable AI

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => All about XAI
- => Explaining AI with Python
- => West Nile virus a case of life or death
- => Explaining Machine Learning with Facets

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Rishav Dash :

~ This is Rishav Dash. I am a Jr. Data Scientist and mentor at INeuron.ai with working experience in computer vision, natural language processing, Machine Learning, and AOps. Hands-on experience leveraging machine learning, deep learning, transfer learning models to challenging real-world problems, and building products to solve peoples problems.

Curriculum details :-

=> Explainable AI :

- ~ Introduction to Explainable AI (XAI)
- ~ All about XAI
- ~ Explaining AI with Python
- ~ West Nile virus a case of life or death
- ~ XAI can save lives using Google Location H
- ~ Explaining Machine Learning with Facets
- ~ Microsoft Azure ML Model Interp SHAP
- ~ SHAP Implementation
- ~ Building XAI solution from scratch
- ~ AI fairness with Google_s What-if-Tool(WIT)
- ~ Local Interpretable Model-Agnostic Explanation(LIMEI)
- ~ The END

NLP Crash Course

Topic Name : DATA SCIENCE

Sub-topic Name : NLP

Course link : <https://ineuron.ai/course/NLP-Crash-Course>

Course Description :-

Natural language processing (NLP) is one of the artificial intelligence's most essential and helpful application fields. As new methodologies and toolsets combine with ever-increasing data availability, NLP is rapidly evolving. In this course, you'll learn about the core concepts of natural language processing (NLP) and how it applies to current and new technologies. You will obtain a comprehensive understanding of contemporary neural network techniques for linguistic data processing. You'll be able to progress from word representation and syntactic processing to creating and executing complicated deep learning models for question answering, machine translation, and other language understanding problems by mastering cutting-edge methodologies.

Course Features :-

- => Quizzes
- => Assignments
- => Hands-on practicals
- => Downloadable resources
- => Completion certificate

What you will learn :-

- => NLP important topics
- => Transfer learning mechanism
- => Real-time project implementation

Requirements :-

- => Basic knowledge of Python programming
- => A system with stable internet connection
- => Your dedication

Instructors :-

- => Sudhanshu Kumar :
 - ~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

- => NLP overview :
 - ~ NLP overview Preview
 - ~ NLP very basic
- => Word Embedding :
 - ~ TFIDF
 - ~ Word embeddings part-1
 - ~ Word embeddings part-2
- => RNN :
 - ~ RNN basic
 - ~ RNN implementation
- => LSTM :
 - ~ LSTM introduction
 - ~ GRU
- => Attention based model :
 - ~ Encoder-Decoder and Attention mechanism
 - ~ Understanding paper "Attention Is All You Need"
- => Transfer learning in NLP :
 - ~ GPT and BERT Model Preview
 - ~ SOTA model with paper discussion
 - ~ ALBERT & DistilBERT project discussion Preview
- => Project :
 - ~ Megatron project
 - ~ Brand measures project

Pro Max Interview Preparation Edition 2

Topic Name : APTITUDE

Sub-topic Name : APTITUDE

Course link : <https://ineuron.ai/course/Pro-Max-Interview-Preparation-Edition-2>

Course Description :-

Pro Max Edition 2. These are interview preparation tests with a singular goal, to make sure you get a little better in real-world interviews. Leaderboards are ranked based on 1st attempt.

Course Features :-

- => Quizzes
- => Course completion certificate

What you will learn :-

- => Interview Preparation Theoretical Test
- => Interview Preparation Practical Test

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to solve

Curriculum details :-

- => Interview Preparation Test :
 - ~ Interview Preparation Test 1
 - ~ Interview Preparation Test 2
 - ~ Interview Preparation Test 3
 - ~ Interview Preparation Test 4
 - ~ Interview Preparation Test 5
 - ~ Interview Preparation Test 6

Full Stack Data Science Nov'21 Tech Neuron

Topic Name : DATA SCIENCE

Sub-topic Name : FULL STACK DATA SCIENCE

Course link : <https://ineuron.ai/course/Full-Stack-Data-Science-Nov'21-Tech-Neuron>

Course Description :-

This is a full stack data science self-paced course with recordings of live mentor-led classes and a full-time one-year internship provided by iNeuron intelligence private limited, where you will learn all the stack required to work in the data science, data analytics, and big data industries, including machine learning operations and cloud infrastructure, as well as real-time industry project and product development with the iNeuron product development team, and you will contribute on various levels.

Course Features :-

- => Full stack Data Science Recorded Lectures
- => One year of internship Anytime
- => Online Instructor-led learning: Live teaching by instructors
- => 56 + hands-on industry real-time projects.
- => 500 hours live interactive classes.
- => Lifetime Dashboard access
- => Assignment in all the module

What you will learn :-

- => Python
- => Stats
- => Machine learning
- => Deep learning
- => Computer vision
- => Natural language processing
- => Data analytics
- => Big data
- => Architecture
- => Databases

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

=> Sudhanshu Kumar :

~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

=> krish naik :

~ Having 10+ years of experience in Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

=> Sunny Savita :

~ I'm an AI enthusiast, graduate in Computer science and engineering. Currently working with iNeuron.ai as a Data Scientist and having 2+ years of experience. I have skills in big data, machine learning, computer vision, Natural language processing. My expertise also includes project design development and implementation with AI/ops tools.

Curriculum details :-

=> Welcome to the Course :

- ~ Course Overview
- ~ Dashboard Introduction

=> Python Fundamentals :

- ~ Python Basic
- ~ String, List, Indexing
- ~ Tuple, Set & Dict
- ~ If, Else & For Loop
- ~ For Loops & While loops
- ~ Python Program Discussion in loops

- ~ *Function Part - 1*
- ~ *Function Part - 2*

=> Advanced Python :

- ~ *Iterator Generator & File System*
- ~ *Exception handling Class 1 part 1*
- ~ *Exception handling Class 1 part 2*
- ~ *Exception handling Class 2*
- ~ *Module & Packages*
- ~ *OOPS Part 1*
- ~ *OOPS Part 2*
- ~ *OOPs Concepts - Polymorphism*

=> Working with Databases & Python :

- ~ *SQL Part 1*
- ~ *SQL Part 2*
- ~ *OOPS Discussion*
- ~ *Introduction to MongoDB*
- ~ *Working with Python & MongoDB Part1*
- ~ *Working with Python & MongoDB Part2*
- ~ *SQL lite, map, reduce, filter, zip*

=> Working with Pandas & Numpy :

- ~ *Introduction to Pandas*
- ~ *Working with Pandas*
- ~ *Pandas Data Analysis Part 1*
- ~ *Pandas Data Analysis Part 2*
- ~ *Pandas and Numpy*
- ~ *Numpy methods*

=> GUI Programming :

- ~ *GUI Programming with Tkinter*

=> Working with Graphs & Charts :

- ~ *Introduction to Graphs & Charts*
- ~ *Working with Graphs in Python*

=> API :

- ~ *API Testing*

=> Python Projects :

- ~ *Flask End-to-End Project*
- ~ *Review Scraper*
- ~ *Image Scraper and deployment on Heroku, AWS and Azure*

=> Statistics :

- ~ *Introduction to Stats - Day 1*
- ~ *Stats - Day 2*
- ~ *Extra doubt session*
- ~ *Stats - Day 3*
- ~ *Stats - Day 4*
- ~ *Stats - Day 5*

=> EDA & Feature Engineering :

- ~ *Introduction to EDA*
- ~ *Doubt Clearing session*
- ~ *EDA and Feature Engineering*

=> Machine Learning :

- ~ *Linear Regression*
- ~ *Ridge Lasso Regression, Elastic & Logistic Regression*
- ~ *Naive Bayes Algorithm and practical implementation of Ridge Lasso and Logistic Regression*
- ~ *Logistic Practical, SSVM, SVR*
- ~ *Decision Tree Classification*
- ~ *Random Forest & SVM*
- ~ *Adaboost*
- ~ *Gradient Boosting*
- ~ *Clustering*
- ~ *Introduction to Machine learning*
- ~ *Linear Regression*
- ~ *Linear Regression live coding demonstration part-1*
- ~ *Linear Regression live coding demonstration part-2*
- ~ *Project Admission Prediction, Lasso, Ridge & Elastic Net*
- ~ *Project deployment in Heroku, Azure & AWS*
- ~ *Logistic Regression*
- ~ *Logistic Regression implementation*
- ~ *Decision Tree*
- ~ *Decision Tree Part 2 , Ensemble Tech, Random Forest & Boosting*
- ~ *KNN and SVM*
- ~ *Decision Tree Practical Implementation*
- ~ *Decision Tree Live Coding & Grid Search*
- ~ *Grid Search, Bagging Classifier & Random Forest*
- ~ *KNN, SVC, SVR & Stacking*
- ~ *Clustering*
- ~ *Clustering and PCA*
- ~ *PCA practical, DBSCAN and Naive Bayes*
- ~ *XG Boost, NLTK & TF-IDF*

=> Machine Learning End to End Project :

- ~ *Machine learning project*
- ~ *Machine learning project*
- ~ *ML End to End project Pipeline Explanation*

- ~ ML Project Explanation along with GitHub and Docker
- ~ Machine Learning Pipelines Live Coding Part-1
- ~ Machine Learning Pipelines Live Coding Part-2
- ~ 2nd July Live Class
- ~ Machine Learning Pipelines Live Coding Part-2
- ~ Revision Class
- ~ Model training, evaluation, and push
- ~ Model training, evaluation, and push
- ~ Revision

=> PCA in ML :

- ~ PCA
- ~ PCA Implementation

=> NLP for Machine Learning :

- ~ NLP in ML
- ~ Spam Classification

=> Time Series Analysis :

- ~ Introduction to Time Series
- ~ Time Series Implementation

=> Stats :

- ~ Introduction
- ~ Different types of Statistics
- ~ Population vs Sample
- ~ Mean, Median and Mode
- ~ Variance, Standard Deviation
- ~ Sample Variance why $n-1$
- ~ Standard Deviation
- ~ Variables
- ~ Random Variables
- ~ Percentiles & quartiles
- ~ 5 number summary
- ~ Histograms
- ~ Gaussian - Normal distribution
- ~ Standard Normal distribution
- ~ Application Of Zscore
- ~ Basics Of Probability
- ~ Addition Rule In Probability
- ~ Multiplication rule in probability
- ~ Permutation
- ~ Combination
- ~ Log Normal Distribution
- ~ Central Limit theorem
- ~ Statistics - Left Skewed And Right Skewed Distribution And Relation With Mean, Median And Mode
- ~ Covariance
- ~ Pearson And Spearman Rank Correlation
- ~ What is P Value
- ~ What is Confidence Intervals
- ~ How To Perform Hypothesis Testing - Confidence IntervalZ Test Statistics Derive Conclusion
- ~ Hypothesis testing part 2
- ~ Hypothesis testing part 3
- ~ Finalizing statistics

=> ML Projects :

- ~ Detailed Project Report explanation
- ~ Project :- Wafer Fault Detection Part 1
- ~ Project :- Wafer Fault Detection Part 2
- ~ Deployment in Heroku using docker and circleci

=> ML Project 1 :- Fault detection in wafers based on sensor data :

- ~ Introduction
- ~ The problem statement and Data Description
- ~ The Application Flow
- ~ Ingestion and Validation Part1
- ~ Validation Part2
- ~ DB Operations
- ~ Data Preprocessing
- ~ Clustering
- ~ Model Selection and Tuning
- ~ Prediction
- ~ Deployment

=> ML Project 2 :- Cement Strength Prediction :

- ~ Introduction
- ~ The Problem Statement and Data Description
- ~ The Application Flow
- ~ Code Intro and Logging
- ~ Validation and Transformation
- ~ DB Operations
- ~ Data Preprocessing
- ~ Clustering
- ~ Model Selection and Tuning
- ~ Prediction
- ~ Deployment

=> ML Project 3 :- Credit Card Defaulters :

- ~ Introduction
- ~ The Problem Statement and Data Description
- ~ The Application Flow

- ~ Code intro and Logging
- ~ Validation and Transformation
- ~ DB Operations
- ~ Data Preprocessing
- ~ Deployment

=> Time Series :

- ~ Arima, Sarima, Auto Arima
- ~ Time series using RNN LSTM, Prediction of NIFTY stock price
- ~ Time series using RNN LSTM, Prediction of NIFTY stock price

=> DL ANN - Introduction :

- ~ Introduction to Deep Learning
- ~ Importance of Deep learning
- ~ Why you should study Deep Learning? (Motivation)
- ~ ANN vs BNN
- ~ The first Artificial Neuron

=> DL ANN - Perceptron :

- ~ Overview of Perceptron
- ~ More about Perceptron
- ~ Perceptron implementation using python - 1
- ~ Perceptron implementation using python - 2
- ~ Perceptron implementation using python - 3
- ~ Perceptron implementation using python - 4
- ~ Perceptron implementation using python - 5
- ~ Perceptron implementation using python - 6
- ~ Perceptron implementation using python - 7
- ~ Python scripting & modular coding for Perceptron
- ~ Python logging basics and docstrings
- ~ Python packaging, Github actions, and PyPI

=> DL ANN - 1 :

- ~ Multilayer Perceptron
- ~ Forward propagation
- ~ Why we need Activation function?
- ~ ANN implementation using tf.keras - 1
- ~ ANN implementation using tf.keras - 2
- ~ ANN implementation using tf.keras - 3
- ~ ANN implementation using tf.keras - 4
- ~ ANN with Callbacks | Tensorboard | Early Stopping | Model Checkpointing

=> DL ANN - 2 :

- ~ Vector
- ~ Differentiation
- ~ Partial differentiation
- ~ Maxima and minima concept
- ~ Gradient descent basics
- ~ In-depth understanding of Gradient descent with mathematical proof

=> DL ANN - 3 :

- ~ Chain rule
- ~ Backpropagation

=> DL ANN - 4 :

- ~ General problems in training Neural Networks
- ~ Vanishing and Exploding gradients
- ~ Activation Function Basics
- ~ Weight initialization
- ~ Activation Functions - 1
- ~ Activation functions - 2
- ~ Activation functions - 3
- ~ Transfer learning
- ~ Batch normalization -1
- ~ Batch normalization -2
- ~ Batch normalization -3

=> DL ANN - 5 :

- ~ Introduction to fast optimizers
- ~ Momentum optimization
- ~ NAG
- ~ Elongated bowl problem | AdaGrad
- ~ RMSProp
- ~ Adam
- ~ Loss functions
- ~ Regularization
- ~ Dropout

=> Computer Vision - Introduction :

- ~ Introduction to Course
- ~ Course Overview
- ~ Installing Anaconda, Pycharm & Postman
- ~ Working with Conda Envs
- ~ Pycharm Introduction
- ~ Pycharm with Conda
- ~ Pycharm with venv
- ~ Pycharm with Pipenv

=> Computer Vision - CNN Foundations :

- ~ Why CNN? Building an Intuition for CNN
- ~ CNN, Kernels, Channels, Feature Maps, Stride, Padding
- ~ Receptive Fields, Image Output Dimensionality Calculations, MNIST Dataset Explorations with CNN

- ~ *MNIST CNN Intuition, Tensorspace.js, CNN Explained, CIFAR 10 Dataset Explorations with CNN*
- ~ *Dropout & Custom Image Classification Dog Cat Dataset*
- ~ *Deployment in Heroku, AWS, Azure*
- ~ *Deployment in GCP, AWS EBS*

=> Computer Vision - CNN Architectures :

- ~ *LeNet-5*
- ~ *LeNet-5 Practical*
- ~ *AlexNet*
- ~ *AlexNet Practical*
- ~ *VGGNet*
- ~ *VGG16 Practical*
- ~ *Inception*
- ~ *Inception Practical*
- ~ *ResNet*
- ~ *Resnet Practical*

=> Computer Vision - Image Classification Hyper Parameter Tuning :

- ~ *Keras Tuner*
- ~ *Building a simple model*
- ~ *Tuning with Keras Tuner*

=> Computer Vision - Data Augmentation :

- ~ *What is Data Augmentation?*
- ~ *Benefits of Data Augmentation*
- ~ *Exploring Papers like RICAP, Random Erasing, Cutout*
- ~ *Exploring Augmentor*
- ~ *Exploring Roboflow*

=> Computer Vision - Object Detection Basics :

- ~ *What is Object Detection?*
- ~ *Competitions for Object Detection*
- ~ *Bounding Boxes*
- ~ *Bounding Box Regression*
- ~ *Intersection over Union (IoU)*
- ~ *Precision & Recall*
- ~ *What is Average Precision?*

=> Computer Vision - Object Detection Architectures :

- ~ *Object Detection Family*
- ~ *RCNN*
- ~ *RCNN Network Architecture*
- ~ *Cons of RCNN*
- ~ *FAST RCNN*
- ~ *FAST RCNN Network Architecture*
- ~ *Cons of FAST RCNN*
- ~ *FASTER RCNN*
- ~ *FASTER RCNN Network Architecture*
- ~ *YOLO*
- ~ *YOLO Architecture*
- ~ *YOLO Limitations*
- ~ *SSD*
- ~ *SSD Network*

=> Computer Vision - Practicals Object Detection using Tensorflow 1.x :

- ~ *Introduction to TFOD1.x*
- ~ *Using Google Colab with Google Drive*
- ~ *Installation of Libraries in Colab*
- ~ *TFOD1.x Setup in Colab*
- ~ *Visiting the Model Zoo*
- ~ *Inferencing in Colab*
- ~ *Inferencing in Local*
- ~ *Important Configurations Files*
- ~ *Webcam Testing*

=> Computer Vision - Practicals Training a Custom Cards Detector using Tensorflow1.x :

- ~ *Custom Model Training in TFOD1.x*
- ~ *Our Custom Dataset*
- ~ *Doing Annotations or labeling data*
- ~ *Selection of Pretrained Model from Model Zoo*
- ~ *Files Setup for Training*
- ~ *Let's start Training in Colab*
- ~ *Export Frozen Inference Graph*
- ~ *Inferencing with our trained model in Colab*
- ~ *Training in Local*
- ~ *Inferencing with our trained model in Local*

=> Computer Vision - Practicals Creating an Cards Detector Web App with TFOD1 :

- ~ *Code Understanding*
- ~ *WebApp Workflow*
- ~ *Code Understanding*
- ~ *Prediction with Postman*
- ~ *Debugging our Application*

=> Computer Vision - Practicals Object Detection using Tensorflow 2.x :

- ~ *Introduction to TFOD2.x*
- ~ *Using the Default Colab Notebook*
- ~ *Google Colab & Drive Setup*
- ~ *Visiting TFOD2.x Model Garden*
- ~ *Inference using Pretrained Model*
- ~ *Inferencing in Local with a pretrained model*

=> Computer Vision - Practicals Training a Custom Chess Piece Detector using Tensorflow2 :

- ~ Custom Model training in TFOD2.x
- ~ Our Custom Dataset TF2
- ~ File Setup for Training
- ~ Let's start Training
- ~ Let's start Training
- ~ Stop Training or resume Training
- ~ Evaluating the trained model
- ~ Convert CKPT to Saved Model
- ~ Inferencing using the Custom Trained Model in Colab
- ~ Inferencing using the Custom Trained Model in Local PC

=> Computer Vision - Practicals Creating an Chess Piece Detector Web App with TFOD2 :

- ~ Creating a Pycharm project & Environment Setup TF2
- ~ Application Workflow
- ~ Code understanding
- ~ Testing our App with Postman
- ~ Debugging our Application

=> Computer Vision - Practicals Object Detection using Detectron2 :

- ~ Introduction to Detectron2
- ~ Detectron2 Colab Setup
- ~ Visiting Detectron2 Model Zoo
- ~ Detectron2 Pretrained Model Inferencing

=> Computer Vision - Practicals Training a Custom Detector using Detectron2 :

- ~ Detectron2 Custom Training
- ~ Exploring the Dataset
- ~ Registering Dataset for Training
- ~ Let's start Training
- ~ Inferencing using the Custom Trained Model in Colab
- ~ Evaluating the Model

=> Computer Vision - Practicals Creating an Custom Detector Web App with Detectron2 :

- ~ Creating a Pycharm project & Environment Setup Detectron2
- ~ Application Workflow
- ~ Code understanding
- ~ Testing our App with Postman
- ~ Debugging our Application

=> Computer Vision - Practicals Object Detection using YoloV5 :

- ~ Introduction to YoloV5
- ~ YoloV5 Colab Setup
- ~ Inferencing using Pre Trained Model

=> Computer Vision - Practicals Training a Custom Warehouse Apparel Detector using YoloV5 :

- ~ Custom Training with YoloV5
- ~ Exploring the Dataset
- ~ Doing Annotations or labeling data
- ~ Setting up Google Colab & Drive
- ~ Let's start Training
- ~ Inferencing using the Custom Trained Model in Colab

=> Computer Vision - Practicals Creating an Warehouse Apparel Detector Web App with YOLOV5 :

- ~ Creating a Pycharm project & Environment Setup Yolo
- ~ Application Workflow
- ~ Code understanding
- ~ Testing our App with Postman
- ~ Debugging our Application

=> Computer Vision - Image Segmentation :

- ~ Segmentation Introduction
- ~ From Bounding Box to Polygon Masks
- ~ What is Image Segmentation?
- ~ Types of Segmentation
- ~ MASKRCNN
- ~ MASK RCNN Architecture

=> Computer Vision - MASK RCNN Practicals with TFOD :

- ~ Segmentation with TFOD1.x
- ~ Local Setup MASKRCNN
- ~ Exploring the Dataset
- ~ Data Annotation
- ~ Model Selection
- ~ Files Setup for Training
- ~ Model Training
- ~ Export Frozen Inference Graph
- ~ Model Prediction

=> Computer Vision - MASKRCNN practical with Detectron2 :

- ~ Introduction to Detectron2
- ~ Detectron2 Colab Notebook
- ~ Exploring the Model Zoo
- ~ Detectron2 Colab Setup
- ~ Custom Training with Detectron2
- ~ Exploring our Dataset
- ~ Data Annotation
- ~ Data Preparation
- ~ Setup for Training
- ~ Let's start Training
- ~ Inferencing using the Custom Trained Model in Colab

~ *Evaluating the Model*

=> **Computer Vision - Face Recognition Project :**

~ *Introduction to Project*
~ *Requirement Gathering*
~ *Techstack Selection*
~ *Project Installation*
~ *Project Demo*
~ *Project Workflow*
~ *Core Components of the Application*
~ *Data Collection Module*
~ *Generate Face Embeddings*
~ *Training Face Recognition Module*
~ *Prediction Pipeline*
~ *Entry point of the Application*
~ *Application Workflow*
~ *Debugging our Application*

=> **Computer Vision - Object Tracking Project :**

~ *Object Tracking project*
~ *Project Installation Tracking*
~ *Project Demo*
~ *Code Understanding*

=> **Computer Vision - GANS :**

~ *Introduction to GANS*
~ *GAN Architecture*
~ *GAN PRACTICALS Implementation*

=> **Computer Vision Project - Traffic Vehicle Detection :**

~ *Introduction to Vehicle Detection project*
~ *Requirement Gathering*
~ *Framework Selection*
~ *Detailed Project Workflow*
~ *Data Collection Scrap*
~ *Data Preparation*
~ *Data augmentation augmenter*
~ *Data Annotations*
~ *Model Training*
~ *Creating a Pycharm project & Environment Setup TVD*
~ *WebApp Workflow*
~ *Code Understanding*
~ *Prediction with Postman*
~ *Debugging our Application*

=> **Computer Vision Project - Helmet Detection :**

~ *Introduction to Helmet Detection project*
~ *Requirement Gathering*
~ *Techstack Selection*
~ *Detailed Project Workflow*
~ *Data Collection*
~ *Data Preparation*
~ *Data Augmentation*
~ *Data Annotations*
~ *Model Training*
~ *Creating a Pycharm project & Environment Setup HD*
~ *WebApp Workflow*
~ *Code Understanding*
~ *Prediction with Postman*
~ *Debugging our Application*

=> **Computer Vision Project - Fashion Apparel Detection :**

~ *Introduction to Fashion Apparel Detection project*
~ *Requirement Gathering*
~ *Techstack Selection*
~ *Detailed Project Workflow*
~ *Data Collection*
~ *Data Preparation*
~ *Data Augmentation*
~ *Data Annotations*
~ *Model Training*
~ *Creating a Pycharm project & Environment Setup FAD*
~ *Project Demo*
~ *WebApp Workflow*
~ *Code Understanding*
~ *Prediction with Postman*
~ *Debugging our Application*

=> **Computer Vision Project - Image TO Text OCR :**

~ *Introduction to Project*
~ *Project Installation OCR*
~ *Project Demo*
~ *Application Workflow*
~ *Code Understanding*
~ *Debugging our App*
~ *Different OCR's available*

=> **Computer Vision Project - Shredder System :**

~ *Introduction to Shredder Systems*
~ *Requirement Gathering*
~ *Techstack Selection*

- ~ Data Collection
- ~ Data Augmentation
- ~ Data Preparation
- ~ Data Annotation
- ~ Model Selection from Zoo
- ~ Model Training
- ~ Creating a Pycharm project & Environment Setup SS
- ~ Application Workflow
- ~ Project Demo
- ~ Code Understanding
- ~ Debugging our Application
- ~ Project Workflow
- ~ Project Workflow

=> Computer Vision Project - Automatic Number plate Recognition with TFOD1.x :

- ~ Introduction to ANPR Project
- ~ Requirement Gathering
- ~ Tech Stack Selection
- ~ Data Collection
- ~ Data Augmentation
- ~ Data Preparation
- ~ Data Annotation
- ~ Model Selection From Zoo
- ~ Model Training
- ~ Creating a Pycharm project & Environment Setup ANPR
- ~ Application Workflow
- ~ Create Google OCR API Key
- ~ Project Demo
- ~ Code Understanding
- ~ Debugging our Application

=> NLP Overview :

- ~ NLP Overview
- ~ NLP very basic

=> NLP Word Embeddings :

- ~ TFIDF
- ~ Word Embeddings Part-1
- ~ Word Embeddings Part-2

=> NLP RNN :

- ~ RNN basic
- ~ RNN Implementation

=> NLP LSTM & GRU :

- ~ LSTM Introduction
- ~ GRU

=> NLP Attention Based Model :

- ~ Encoder Decoder and Attention Mechanism
- ~ Attention All You Need Paper Understanding

=> NLP Transfer Learning in NLP :

- ~ GPT and BERT Model
- ~ SOTA Model with Paper Discussions
- ~ Albert & DistillBert Project Discussion

=> NLP Project :- Megatron :

- ~ Megatron Project

=> NLP Project:- Brand Measures :

- ~ Brand Measures Project

=> NLP Project:- Text to Speech :

- ~ Introduction
- ~ Project Setup Text to Speech
- ~ Project Demo
- ~ Code Explanation
- ~ Project Workflow
- ~ Prediction with Postman
- ~ Debugging Application

=> NLP Project:- Speech To Text :

- ~ Introduction
- ~ Project Setup Speech To Text
- ~ Project Demo
- ~ Code Explanation
- ~ Project Workflow
- ~ Prediction with Postman
- ~ Debugging Application

=> NLP Project:- Spell Corrector :

- ~ Introduction
- ~ Project Setup Spell Corrector
- ~ Project Demo
- ~ Code Explanation
- ~ Project Workflow
- ~ Prediction with Postman
- ~ Debugging Application

=> NLP Project:- Named Entity Recognition :

- ~ NER using BERT

=> NLP Project:- Machine Translation & Keyword Spotting :

- ~ Machine Translation
- ~ Keyword Spotting

=> NLP Project:- Keyword Extractor & Summarization :

- ~ Keyword Extraction
- ~ Extractive Text Summarization

=> NLP project:- Paraphrasing :

- ~ Rephrase Project

=> BigData - Introduction to Big Data and Data Engineering :

- ~ Big Data Engineering

=> BigData - Introduction to Distributed Systems - Hadoop and MapReduce :

- ~ Big Data Engineering Introduction

=> BigData - Map Reduce & YARN :

- ~ Big Data Hadoop Map Reduce YARN
- ~ Hadoop Map Reduce Hands On

=> BigData - Hive :

- ~ Apache hive

=> BigData - Hive Hands On :

- ~ Apache hive Hands On

=> BigData - NoSQL and Hbase :

- ~ Big Data HBase
- ~ Hbase hands On

=> BigData - Sqoop :

- ~ Big Data Sqoop
- ~ Big Data Sqoop Hands On

=> BigData - Spark :

- ~ Spark - Introduction
- ~ Big Data Engineering using PySpark- RDDs
- ~ Spark hands on - RDD
- ~ Big Data Engineering using PySpark- Core, Internals, Architecture
- ~ Apache Spark Actions_ Transformations
- ~ Apache Spark Caching
- ~ Big Data Engineering using PySpark- Shared Vars , Coalesce Repartition
- ~ Big Data Engineering using PySpark- Dataframes
- ~ Spark hands on - Dataframe
- ~ Spark hands on - Databricks
- ~ Big Data Engineering using PySpark- Catalyst& Tungsten

=> BigData - Spark ML :

- ~ Big Data Engineering using PySpark- MLlib
- ~ Spark hands On - Spark ML Lib

=> BigData - Spark Streaming :

- ~ Big Data Engineering using PySpark- Streaming Part 1
- ~ Big Data Engineering using PySpark- Streaming Part 2
- ~ Spark hands On - Spark Streaming

=> BigData - Kafka :

- ~ Big Data Kafka
- ~ Big Data Kafka Hands on

=> BigData - Apache Airflow - Workflow Management Platform :

- ~ Big Data - Airflow
- ~ Big Data Airflow Hands On

=> Big Data Projects :

- ~ IoT Sensor data pipeline using Kafka-Spark Streaming
- ~ Product Recommendation Engine using Kafka-Spark Streaming
- ~ Short Video App Analytics

=> Basic Charts in Power BI :

- ~ 2.0 Basic Charts in Power BI Desktop
- ~ 2.1 Column Chart in Power BI
- ~ 2.2 Stacked Column Chart in Power BI
- ~ 2.3 Pie Chart in Power BI
- ~ 2.4 Donut Chart in Power BI
- ~ 2.5 Funnel Chart in Power BI
- ~ 2.6 Ribbon Chart
- ~ 2.7 Include and Exclude
- ~ 2.8 Export data from Visual

=> Working with Maps :

- ~ 3.1 Creating a Map in Power BI
- ~ 3.2 Filled Map
- ~ 3.3 Map with Pie Chart
- ~ 3.4 Formatting in Map
- ~ 3.5 Change Background in Map
- ~ 3.6 Map of India in Power BI
- ~ 3.7 Map of Australia in Power BI

=> Tables and Matrix in Power BI :

- ~ 4.0 Table and Matrix in Power BI
- ~ 4.1 Creating a Table in Power BI
- ~ 4.2 Formatting a Table

- ~ 4.3 Conditional Formatting in Table
- ~ 4.4 Aggregation in Table
- ~ 4.5 Matrix in Power BI
- ~ 4.6 Conditional Formatting in Matrix
- ~ 4.7 Hierarchy in Matrix
- ~ 4.8 Sub-Total and Total in Matrix
- ~ 4.9 Number Formatting in Table

=> Other Charts in Power BI :

- ~ 5.0 Other Charts in Power BI
- ~ 5.1 Line Chart in Power BI
- ~ 5.2 Drill Down in Line Chart
- ~ 5.3 Area Chart in Power BI
- ~ 5.4 Line vs Column Chart in Power BI
- ~ 5.5 Scatter Plot in Power BI
- ~ 5.6 Waterfall Chart in Power BI
- ~ 6.7 TreeMap in Power BI
- ~ 5.8 Gauge Chart in Power BI

=> Cards and Filters :

- ~ 6.0 Cards and Filters in Power BI
- ~ 6.1 Number Card
- ~ 6.2 Text Card
- ~ 6.2.1 Formatting of Text Card
- ~ 6.3 Date Card
- ~ 6.3.1 Date Card (Relative Filtering)
- ~ 6.4 Multi-Row Card
- ~ 6.5 Filter on Visual
- ~ 6.6 Filter on This Page
- ~ 6.7 Filter on All Pages
- ~ 6.8 Drillthrough in Power BI

=> Slicers in Power BI :

- ~ 7.0 Slicers in Power BI
- ~ 7.1 Text Slicers in Power BI
- ~ 7.2 Formatting a Text Slicer
- ~ 7.3 Date Slicers in Power BI
- ~ 7.4 Formatting a Date Slicer
- ~ 7.5 Number Slicers in Power BI

=> Introduction to tableau :

- ~ Tableau Introduction
- ~ Download and Install Tableau
- ~ Tableau Vs Excel

=> Charts - 1 :

- ~ Column Chart
- ~ Horizontal Bar Chart
- ~ Stacked Column Chart
- ~ Stacked Bar Chart
- ~ Keep Only, Exclude
- ~ Keep Only, Exclude2_Normal
- ~ Publish to Tableau Public

=> Charts - 2 :

- ~ Pie Chart
- ~ Multiple Pie Chart
- ~ TreeMap_Editing
- ~ Packed Bubble Chart
- ~ Word Cloud OR Word Map
- ~ Formatting payal

=> Charts - 3 :

- ~ Data Types in Tableau
- ~ Filled Map
- ~ Symbol Maps
- ~ India Map
- ~ Histogram

=> SQL :

- ~ Database Architecture
- ~ Introduction to SQL
- ~ Constraints
- ~ Data Definition Language (DDL)
- ~ Data Query Language (DQL)
- ~ Data Manipulation Language (DML)
- ~ Joins
- ~ Import Export
- ~ Aggregate Functions
- ~ Order by, Having & Limit Clause
- ~ String Functions
- ~ Datetime functions
- ~ Understanding Regular Expressions
- ~ Nested Queries
- ~ Views
- ~ Stored Procedures
- ~ WindowsFn
- ~ Python-SQL Connectivity

=> Excel :

- ~ Introduction to Excel

- ~ *Pre-defined functions*
- ~ *Datetime Functions*
- ~ *String functions*
- ~ *Mathematical functions*
- ~ *Lookup*
- ~ *Logical & Error Functions*
- ~ *Statistical Functions*
- ~ *Images in Excel*
- ~ *Excel Formatting*
- ~ *Custom Formatting*
- ~ *Conditional Formatting*
- ~ *Charts in Excel*
- ~ *Data Analysis using Excel*
- ~ *Pivot Tables*
- ~ *Dashboarding in Excel*
- ~ *Others*
- ~ *What-If Tools - Scenario Manager, Goal Seek*

Machine Learning Projects

Topic Name : DATA SCIENCE

Sub-topic Name : MACHINE LEARNING PROJECT

Course link : <https://ineuron.ai/course/Machine-Learning-Projects>

Course Description :-

The science of getting computers to act without being explicitly programmed is known as machine learning. This course will teach you about the most effective machine learning techniques and give you practice putting them into practice. More significantly, you'll master not only the theoretical foundations of learning but also the practical know-how required to apply these strategies to new challenges quickly and effectively.

Course Features :-

- => End to end model deployment in azure, GCP, AWS, and pivotal cloud
- => Time series end to end implementation in machine learning
- => Completion certificate
- => A live project with real-time implementation

What you will learn :-

- => Machine learning end-to-end project
- => Problem solving skills and approach

Requirements :-

- => Basic understanding of Machine Learning
- => Your dedication

Instructors :-

- => Sudhanshu Kumar :
 - ~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

- => Machine Learning Projects :
 - ~ Revenue forecasting for startups
 - ~ Anomaly detection in inventory packaged material.
 - ~ Demand forecasting for FMCG products.
 - ~ Defect detection in the vehicle engine.
 - ~ Fault detection in wafers based on sensor data.
 - ~ Credit card fraud.
 - ~ Fraud detection. Preview
 - ~ Mushroom classifier, phishing classifier, thyroid detection. Preview

Big Data Masters Tech Neuron

Topic Name : BIG DATA

Sub-topic Name : BIG DATA MASTERS

Course link : <https://ineuron.ai/course/Big-Data-Masters-Tech-Neuron>

Course Description :-

This unique industry program will help to learn the entire stack of Big Data and be ready to crack jobs in leading organizations.

Course Features :-

- => Full stack Data Science masters certification
- => One year of internship Anytime
- => Online Instructor-led learning: Live teaching by instructors
- => 20 + hands-on industry real-time projects.
- => 200 hours live interactive classes.
- => Lifetime Dashboard access
- => Assignment in all the module
- => Quiz in every module
- => A live project with real-time implementation
- => Interview Preparation Anytime
- => Regular assessment

What you will learn :-

- => Big Data
- => Hadoop
- => HDFS
- => YARN
- => Linux
- => AWS EC2
- => AWS IAM
- => AWS S3
- => AWS SNS
- => AWS DMS
- => AWS RDS
- => AWS Redshift
- => Hbase
- => Sqoop
- => Confluent
- => Atlas
- => Ambari
- => Databricks

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Sudhanshu Kumar :

~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

=> Shashank Mishra :

~ Experienced Data Engineer with a demonstrated history of working in service and product companies. Solved data mysteries for different domains like Aviation, Pharmaceutical, FinTech, Telecom and Employee Services. Have designed scalable & optimized data pipelines to handle PetaBytes of data, with Batch & Real Time frequency. Got good exposure on different BigData frameworks (Hadoop, Spark, Hive, Sqoop, Flume, Flink, Kafka, Docker), Databases (MySQL, HBase, Cassandra, Redshift, Elastic Search), AWS Services (S3, Lambda, EMR, Glue, Cloudwatch, Redshift, SNS, SQS, Athena, Appflow), Dashboarding Tools (Grafana, Kibana, QuickSight, DataDog, Data Studio), Monitoring Tools (Airflow, Azkaban), Web Development (HTML, CSS, Scala Play, Django, Rest API, JavaScript, Ajax, JQuery), Good command over programming languages (Python, Java, Scala, Shell Scripting) and strong Data Structures & Algorithm fundamentals.

Curriculum details :-

=> Big Data Introduction: Introduction :

- ~ What is Big Data?
- ~ Evolution of Big Data
- ~ Why to learn Big Data technologies?
- ~ Examples of Big Data
- ~ Who is using Big Data?
- ~ Why is Data so important?
- ~ Characteristics of Big Data
- ~ Challenges of Big Data
- ~ Data scale
- ~ Manage, store and process Big Data
- ~ 5 Vs of Big Data
- ~ Sources of Data flood
- ~ Exploding data problem
- ~ OLTP and OLAP
- ~ Operational vs Analytical Big Data
- ~ Possible solutions: scaling up vs. scaling out
- ~ Challenges of scaling up and scaling out

=> Hadoop fundamentals :

- ~ What is Hadoop?
- ~ Hadoop in layman's term
- ~ History and timeline of Hadoop
- ~ Evolutionary features of Hadoop
- ~ Why hadoop in demand?
- ~ Components of Hadoop ecosystem
- ~ Hadoop architecture
- ~ How hadoop solve data explosion problem?
- ~ Differences between Hadoop 1.X and Hadoop 2.X and Hadoop 3.X
- ~ Hadoop 1.x 2.x 3.x architecture, components and working of those Components

=> HDFS :

- ~ Design of HDFS
- ~ HDFS architecture
- ~ HDFS features
- ~ Name node and data node
- ~ Secondary name node
- ~ Job tracker
- ~ Task tracker
- ~ Client nodes
- ~ Explain master-slaves
- ~ Pseudo-distributed
- ~ Fully-distributed
- ~ Data replication
- ~ How does a file read and write work?
- ~ Local file system and HDFS
- ~ Rack awareness
- ~ Arrangement of racks
- ~ Arrangement of machines and racks
- ~ Checkpointing in Hadoop
- ~ Benefits of replica placement and rack awareness
- ~ URL And URN
- ~ HDFS commands
- ~ HDFS web interface
- ~ Fault tolerance
- ~ Name node failure management
- ~ Anatomy of file read and write from HDFS
- ~ Important java classes to write data to HDFS
- ~ Inputsplit and data blocks difference
- ~ Why Is the block size 128 MB?
- ~ Recordreader
- ~ Inputformat
- ~ Default Inputformat:TextInputformat
- ~ Outputformat
- ~ What is partitioner?
- ~ Using partitioner
- ~ Map only job
- ~ Flow of operations in MapReduce
- ~ Serialization in MapReduce

=> HDFS Operations :

- ~ Start HDFS
- ~ Listing files in HDFS
- ~ Writing a file into HDFS
- ~ Reading data from HDFS
- ~ Shutting down HDFS
- ~ Listing contents of directory
- ~ Displaying and printing disk usage
- ~ Moving files & directories
- ~ Copying files and directories
- ~ Displaying file contents

=> YARN :

- ~ What is Yarn?
- ~ Why Yarn?
- ~ Classic MapReduce v/s Yarn
- ~ Yarn architecture

- ~ Resource Manager
- ~ Node manager
- ~ Application master
- ~ Node manager containers
- ~ Resource manager components
- ~ Advantages & disadvantages of Yarn
- ~ Yarn applications
- ~ Scheduling in Yarn
- ~ Fair Scheduler
- ~ Fault Tolerance
- ~ Schedulers in Yarn
- ~ FIFO scheduler
- ~ Capacity scheduler
- ~ Fair scheduler

=> Setting up Our Linux Space :

- ~ Downloading necessary tools
- ~ Installing Ubuntu in Windows
- ~ What is SSH?
- ~ Install SSH Clients
- ~ Setting up SSH in Ubuntu VM
- ~ How to do SSH to your Ubuntu VM?
- ~ Setting Up Passwordless SSH

=> AWS EC2 :

- ~ Launch a Basic EC2 Instance
- ~ Different Types of instances - Reserved, On-Demand, Spot, Dedicated
- ~ Different configurations of EC2 machines
- ~ Attaching detaching of EBS Volume in EC2
- ~ Practising few commands on EC2

=> AWS IAM :

- ~ The Mechanics behind IAM
- ~ Managing IAM Users
- ~ IAM Administration (Guide) (Listing, Deleting Users & Accounts)
- ~ Managing Permissions for IAM Users
- ~ Changing IAM User Permissions
- ~ Creating and Administering IAM Groups
- ~ Creating and Administering IAM Group Policies
- ~ Assigning Preset and Custom Group Policies

=> AWS S3 :

- ~ Buckets
- ~ Objects
- ~ Upload, Delete Files
- ~ Data Encryptions
- ~ Pricing & Data Limitation on S3
- ~ S3 Versioning
- ~ Version ID
- ~ Bucket policy
- ~ Notifications from S3
- ~ Work with S3 using AWS CLI
- ~ AWS Lambda
- ~ What is AWS Lambda and Why it is needed?
- ~ Features & Limitations of Lambda
- ~ Hello world program using Lambda
- ~ Auto trigger Lambda Function based on S3 file upload notification
- ~ Access other services from Lambda
- ~ AWS Secret Manager
- ~ Create and Maintain secrets
- ~ Accessing credentials from Secret Manager using Boto3

=> AWS EMR :

- ~ Setting up EMR Cluster
- ~ Install Spark, Hive, Hadoop
- ~ Resource types in EMR cluster
- ~ Data Processing on EMR Cluster
- ~ AWS Glue
- ~ Setting up cluster in Glue
- ~ Properties of Glue
- ~ Creating Catalogs in Glue
- ~ Read partitioned Data
- ~ Bulk and Incremental data processing from S3 in Glue
- ~ Data Processing in Glue
- ~ Glue jobs and Triggers

=> AWS SNS :

- ~ What is SNS?
- ~ How SNS works?
- ~ Creating SNS Topics and subscribing
- ~ Different types of subscribers
- ~ Sending notifications via SNS
- ~ AWS SQS
- ~ What is SQS?
- ~ Different types of SQS?
- ~ At-Least once and Exactly once delivery via SQS
- ~ Ingesting data to SQS
- ~ Inflight messages
- ~ Consume data from SQS
- ~ Dead Letter Queue

=> AWS DMS :

- ~ What is DMS?
- ~ Capturing CDC event in DMS where Database as a source
- ~ Capture CDC events and sending it to downstream systems
- ~ AWS Kinesis
- ~ Creating Kinesis Streams
- ~ Ingesting real time data in Kafka Streams
- ~ Consume real time data from Kafka Streams

=> AWS RDS :

- ~ MySQL Database using AWS RDS
- ~ Scalability & Limitations of AWS RDS
- ~ Creating tables and loading data in AWS RDS
- ~ Querying data from RDS
- ~ AWS Athena
- ~ What is serverless database services
- ~ Athena vs RDS
- ~ Table metadata in Athena for the data residing in S3
- ~ Creating table for S3 data
- ~ Querying S3 data using Athena

=> AWS Redshift :

- ~ What is Data warehousing services?
- ~ Architecture of Redshift
- ~ Resources types in Redshift Cluster
- ~ Creating tables in Redshift
- ~ Internal & External tables
- ~ Partitioning, Sort Keys, Column compression
- ~ Querying data in Redshift
- ~ Views & Materialized views in Redshift

=> AWS Dynamo :

- ~ Architecture of DynamoDB
- ~ Creating tables and Ingesting data into DynamoDB table
- ~ Querying data from DynamoDB
- ~ AWS Cloudwatch
- ~ Cron based triggers
- ~ Event pattern based triggers
- ~ Monitoring & Alerting using Cloudwatch
- ~ AWS QuickSight
- ~ Creating business dashboards using Quick sight

=> Introduction :

- ~ What is Hive?
- ~ Hive Vs Map Reduce
- ~ Hive Vs Relational databases
- ~ Installation and setup of Hive
- ~ Introduction to CouchDB
- ~ Why CouchDB?
- ~ History of CouchDB
- ~ Features of CouchDB
- ~ Advantages of CouchDB
- ~ Disadvantages of CouchDB
- ~ What is Neo4j?
- ~ Why Neo4j?
- ~ Features of Neo4j
- ~ Advantages of Neo4j
- ~ Neo4j Architecture
- ~ Applications of Neo4j
- ~ Data model of Neo4j
- ~ Building Blocks of Neo4j

=> Hive Architecture :

- ~ Hive architecture
- ~ Different modes of Hive
- ~ Hive Functions: Built-in & UDF
- ~ Datatypes in Hive
- ~ Operators in Hive
- ~ How to create and drop databases?
- ~ Hive create table: internal table, external table , alter, drop

=> DDL and DML commands in Hive :

- ~ Hive DDL
- ~ Create
- ~ Show
- ~ Describe
- ~ Use
- ~ Drop
- ~ Alter
- ~ Truncate
- ~ Hive DML
- ~ Load
- ~ Select
- ~ Insert
- ~ Delete
- ~ Update
- ~ Export
- ~ Import
- ~ Hive view and index
- ~ What is Hive metastore?

- ~ How to install and configure Hive metastore?
- ~ What is Hive data modeling?

=> Hive partitioning and bucketing :

- ~ Partitioning in Hive
- ~ Static and dynamic partitioning
- ~ Bucketing in Hive
- ~ Bucketing vs Partitioning
- ~ What is Hive query language(HQL)?

=> HQL language :

- ~ HiveQL- Where
- ~ HiveQL- Order By
- ~ HiveQL- Group By
- ~ HiveQL- Joins and types
- ~ HiveQL- SubQuery
- ~ Hive ETL: loading JSON, XML, text data
- ~ Working with arrays
- ~ Sort by and order by
- ~ Distribute by and cluster by
- ~ Bucket-map join
- ~ Sort-Merge-Bucket-Map join
- ~ Left semi join

=> Different File formats in Hive :

- ~ File formats in Hive
- ~ Text files
- ~ Input formats in Hive
- ~ Sequence files in Hive
- ~ RC file in Hive
- ~ Sequencefile
- ~ ORC files in Hive
- ~ Avro files
- ~ Parquet file
- ~ Inline index in ORC files
- ~ ORC file configurations in Hive
- ~ SerDe in Hive
- ~ Demo: CSVSerDe
- ~ JSONSerDe
- ~ RegexSerDe
- ~ Analytic and windowing in Hive
- ~ Demo: analytics.hql
- ~ Hcatalog in Hive
- ~ Demo: using_HCatalog
- ~ Accessing Hive with JDBC
- ~ Demo: HiveQueries.Java
- ~ HiveServer2 and beeline
- ~ Demo: beeline
- ~ Demo: ToUpper.Java and working_with_UDF
- ~ Optimizations in Hive
- ~ Demo: Optimizations

=> Introduction of HBase :

- ~ What is HBase?
- ~ HDFS and HBase
- ~ HBase vs RDBMS
- ~ HBase vs HIVE
- ~ HBase storage mechanism
- ~ Feature of HBase
- ~ Applications of HBase

=> HBase installation setup :

- ~ Apache HBase setup
- ~ Hardware recommendations
- ~ Software recommendations
- ~ Installation using cloudera manager
- ~ Basic static configuration

=> HBase architecture :

- ~ Architecture of HBase
- ~ Components of HBase architecture
- ~ Client library
- ~ Zookeeper
- ~ HMaster server
- ~ HBase regions servers

=> HBase commands :

- ~ General commands
- ~ status
- ~ table_help
- ~ version
- ~ whoami
- ~ Data definition commands
- ~ alter
- ~ alter_async
- ~ alter_status
- ~ create
- ~ drop
- ~ drop_all
- ~ enable
- ~ enable_all

- ~ exists
- ~ get_table
- ~ is_disabled
- ~ is_enabled
- ~ show_filters
- ~ Data manipulation commands
- ~ append
- ~ count
- ~ delete
- ~ deleteall
- ~ get_table
- ~ get_counter
- ~ put
- ~ truncate
- ~ truncate_preserve
- ~ Other HBase shell commands
- ~ Admin commands
- ~ Replication commands
- ~ Snapshot commands
- ~ Visibility labels commands
- ~ Security commands

=> CRUD operations using HBase shell :

- ~ What is HBase shell?
- ~ HBase shell usage
- ~ Starting HBase shell
- ~ Creating table
- ~ Inserting a row
- ~ Updating a row
- ~ Retrieving a row
- ~ Retrieving a range of rows
- ~ Deleting a row
- ~ Deleting a table
- ~ Retrieve rows within a time range
- ~ Filter by column value - SingleColumnValueFilter
- ~ Filter by Row id - RowFilter
- ~ Apply multiple conditions - Filterlist

=> Understanding the troubleshooting in HBase :

- ~ Understand the troubleshooting
- ~ Trouble shooting distributed clusters
- ~ Administration from the command line
- ~ How to use the HBase UI?
- ~ How to use the Metrics and the logs?

=> Basic Introduction :

- ~ Challenges with traditional RDBMS
- ~ What is Nosql database?
- ~ History behind the creation of Nosql databases
- ~ Features of Nosql database
- ~ Different types of Nosql databases
- ~ When Nosql should be used?
- ~ Advantages of Nosql
- ~ Disadvantages of Nosql
- ~ Why Nosql database?

=> Introduction and overview of cassandra :

- ~ What is Apache Cassandra?
- ~ History of Cassandra
- ~ Cassandra Database vs Relational Database
- ~ Apache Cassandra features
- ~ Cassandra use cases and applications
- ~ Advantages of Cassandra
- ~ Disadvantages of Cassandra

=> Setup, installtion and configuration :

- ~ Cassandra configuration with datastax
- ~ Understanding different ways to communicate with cassandra
- ~ Using cqlsh

=> Cassandra Architecture :

- ~ Cassandra architecture
- ~ Cassandra data model
- ~ Cassandra as a distributed database
- ~ Node
- ~ Data center
- ~ Cluster
- ~ Commit log
- ~ Mem-table
- ~ SSTable
- ~ Data replication
- ~ Write operation
- ~ Read operation
- ~ Data compaction

=> Cassandra Data Modeling :

- ~ Data modeling basics
- ~ Cassandra data modeling
- ~ Cassandra column types
- ~ Cassandra keyspace

=> Cassandra cluster and node :

- ~ *Configure and managing a cluster*
- ~ *Cluster and nodes*
- ~ *Adding nodes to cluster*
- ~ *Monitoring a cluster*
- ~ *Repairing a nodes*
- ~ *Removing a node*

=> Cassandra - Shell Commands :

- ~ *Help*
- ~ *Capture*
- ~ *Consistency*
- ~ *Copy*
- ~ *Describe tabel*
- ~ *Describe keyspaces*
- ~ *Expand*
- ~ *Exit*
- ~ *Show*
- ~ *Source*

=> Cassandra Query Language(CQL) :

- ~ *CQL Data Definition Commands*
- ~ *Cassandra CQL Data Types*
- ~ *Creating Database*
- ~ *Creating Keyspace*
- ~ *Use Keyspace*
- ~ *Alter Keyspace*
- ~ *Drop Keyspace*
- ~ *Create Table*
- ~ *Alter table*
- ~ *Drop table*
- ~ *Truncate*
- ~ *Create Index*
- ~ *Drop Index*
- ~ *CQL Data Manipulation Commands*
- ~ *Insert*
- ~ *Update*
- ~ *Delete*
- ~ *Batch*
- ~ *CQL Clauses*
- ~ *Select*
- ~ *Cassandra Where Clause*
- ~ *Cassandra Order by Clause*

=> Advanced CQL :

- ~ *CQL Collections*
- ~ *CQL User-Defined Types*
- ~ *Defining a Primary key*
- ~ *Defining a Partition key*
- ~ *Introduction to User-defined types(UDT)*
- ~ *How to Create a UDT?*
- ~ *UDT literals*
- ~ *How to alter a UDT?*
- ~ *How to drop a UDT?*

=> Cassandra CRUD Operation :

- ~ *Create data*
- ~ *Update data*
- ~ *Read data*
- ~ *Delete data*
- ~ *Maps*
- ~ *Sets*
- ~ *Lists*
- ~ *Key and indexing*

=> Introduction to MongoDB :

- ~ *Introduction*
- ~ *key charcristic of MongoDB*
- ~ *Understanding MongoDB ecosystem*
- ~ *Advantages & disadvantages of using MongoDB*

=> MongoDB installtion and setup :

- ~ *MongoDB installation in local*
- ~ *Setup MongoDB server*
- ~ *Setup MongoDB compass*
- ~ *Exploring the MongoDB compass*
- ~ *MondoDB local server and compass setup*
- ~ *MongoDB atlas setup*

=> Architecture :

- ~ *Architecture of MongoDB*
- ~ *Understanding databases, collections & documents*
- ~ *Creating databases & collections*
- ~ *Understanding JSON Data*
- ~ *Comparing JSON & BSON*
- ~ *Storage engines*
- ~ *Read path*
- ~ *Write path*
- ~ *Working set*
- ~ *Capped collection*

- ~ Oplog collection
- ~ TTL index
- ~ Gridfs

=> CRUD operations :

- ~ MongoDB data types
- ~ Finding, Inserting, Deleting & Updating elements
- ~ Querying the documents
- ~ Bulk insert operations
- ~ Updating multiple document
- ~ Limiting documents
- ~ Understanding insertOne vs insertMany()
- ~ Updateone() vs updateMany()
- ~ Understanding find() & fetchall()
- ~ Understanding "deleteOne()" & "deleteMany()"
- ~ Filtering documents

=> Schema design and data modeling :

- ~ Why do we use Schemas?
- ~ What is data modeling?
- ~ RDBMS and MongoDB data modeling difference
- ~ Embedding document
- ~ Reference document
- ~ Structuring documents
- ~ Understanding relations
- ~ One To One
- ~ One To Many
- ~ Many To Many

=> Database administration in MongoDB :

- ~ Database status
- ~ Troubleshooting issues
- ~ Current operations
- ~ Rotating log files
- ~ Users and roles
- ~ Copy and clone database
- ~ DB and collection stats
- ~ Explain plan
- ~ Profiling
- ~ Changing configuration files
- ~ Upgrading the database

=> MongoDB: backup and security :

- ~ Concept of backups
- ~ Mongoexport/mongoimport
- ~ Mongodump/mongorestore
- ~ Oplog backups
- ~ LVM backups
- ~ Backups using MMS/Ops manager
- ~ Purpose of security
- ~ Authentication and authorization
- ~ Role based access control

=> Working with python driver :

- ~ Splitting work between the Driver & the Shell
- ~ Preparing our project
- ~ Installing Visual Studio Code or Pycharm
- ~ Installing the Python
- ~ Connecting Python & the MongoDB cluster
- ~ Storing products in the database
- ~ Fetching data from the database
- ~ Getting a single product
- ~ Editing & deleting products
- ~ Implementing pagination
- ~ Adding an index
- ~ Adding an index to make the Email unique
- ~ Adding user sign-in

=> Replication in MongoDB :

- ~ Concept of replication
- ~ Replicaset member roles
- ~ Voting and electing primary
- ~ Role of oplog in replication
- ~ Read and write concern
- ~ Arbiter, Hidden and Delayed replica node
- ~ Priority settings
- ~ Replicaset nodes health check
- ~ Concept of resyncing the nodes
- ~ Rollbacks during failover
- ~ Keyfile authentication

=> MongoDB scalability :

- ~ Concept of scalability
- ~ Sharding concept
- ~ Shardkey and chunks
- ~ Choosing shardkey
- ~ Sharding components
- ~ Types of sharding
- ~ Balanced data distribution
- ~ Sharded and non-sharded collection
- ~ Sharded replicaset

- ~ Tag aware sharding

=> MongoDB Monitoring :

- ~ MMS manager
- ~ Ops manager
- ~ MongoDB utility commands
- ~ MongoDB developer tools
- ~ MongoDB client drivers

=> CouchDB Architecture :

- ~ CouchDB engine
- ~ HTTP request
- ~ Document
- ~ Replica database

=> Graph Database in Neo4j :

- ~ What is Graph Database?
- ~ Why Graph Database?
- ~ Graph DB Data Model
- ~ Graph DB vs RDBMS
- ~ The Property Graph Model

=> Setup :

- ~ Environment setup for Neo4j
- ~ Installation of Neo4j on Windows
- ~ Installation of Neo4j on Linux
- ~ Installation of Neo4j on Mac
- ~ Exploring Neo4j Bloom

=> Neo4j CQL :

- ~ Introduction to Neo4j CQL
- ~ Neo4j CQL clauses
- ~ Neo4j CQL Functions
- ~ Neo4j CQL Data Types
- ~ Neo4j CQL operators
- ~ Neo4j CQL Boolean operators
- ~ Neo4j CQL Comparison operators
- ~ Node Creation in Neo4j CQL
- ~ Relationship creation in Neo4j CQL

=> Neo4j CQL Operators :

- ~ Neo4j CQL Operators
- ~ Comparison Operators
- ~ Boolean Operators
- ~ String Operators
- ~ List Operators
- ~ Regular Expression
- ~ String matching

=> Neo4j clauses :

- ~ Match Clause
- ~ Optional Match Clause
- ~ Where Clause
- ~ Count Function
- ~ Return Clause
- ~ Order by Clause
- ~ Limit Clause
- ~ Skip Clause

=> Neo4j CQL Clauses :

- ~ Neo4j CQL General clauses
- ~ Neo4j CQL Write clauses
- ~ Neo4j CQL Readclauses

=> Introduction to Kafka :

- ~ Introduction to Apache Kafka
- ~ History of Apache Kafka
- ~ Why Apache Kafka?
- ~ What is messaging system?
- ~ Kafka message flow
- ~ Committed vs uncommitted messages
- ~ Kafka operations
- ~ Kafka communication
- ~ Advantages of Kafka
- ~ Kafka use-cases

=> Architecture of kafka :

- ~ Kafka architecture

=> Installation of kafka :

- ~ Installation of Kafka in local system
- ~ kafka setup on cloud
- ~ Kafka - Confluent
- ~ Kafka - Confluent platform

=> Kafka CLI :

- ~ Introduction to Kafka CLI
- ~ Creating Kafka topic
- ~ Listing topics in Kafka CLI
- ~ Deleting topics in Kafka CLI
- ~ Getting details of Kafka topic
- ~ Producing data to Kafka topic

- ~ Consuming data to Kafka topic
- ~ Purging a Kafka topic

=> Zookeeper in Kafka :

- ~ Why Zookeeper is used in Kafka?
- ~ Role of Zookeeper in Kafka

=> Kafka APIs :

- ~ Introduction to Kafka API
- ~ Different types of Kafka API
- ~ Producer API
- ~ Consumer API
- ~ Streams API
- ~ Connector API
- ~ Kafka integration with Spark

=> Introduction to NiFi :

- ~ What is Apache NiFi?
- ~ Architecture of Apache NiFi
- ~ Characteristics of Apache NiFi
- ~ Advantages of Apache NiFi

=> Installation of Apache NiFi :

- ~ Environment Setup
- ~ Setting up Windows Developer Environment
- ~ Setting up Linux Developer Environment
- ~ Setting up Mac Developer Environment

=> Apache NiFi Repository :

- ~ Flowfile Repository
- ~ Content Repository
- ~ Provenance Repository

=> Apache NiFi User Interface :

- ~ Introduction to Apache NiFi User Interface
- ~ NiFi Canvas
- ~ NiFi Processors
- ~ Process Groups and Templates
- ~ Apache NiFi components

=> Apache NiFi Processors :

- ~ Introduction to Apache NiFi Processors
- ~ GenerateFlowFile
- ~ LogAttribute
- ~ Functionality of NiFi Processors

=> Data Flows and Content :

- ~ NiFi Properties and Settings
- ~ Data Flow Monitoring in NiFi

=> Processing files in Apache NiFi :

- ~ Processing of CSV file
- ~ Processing of JSON file
- ~ Processing of Text file

=> Getting started with Spark :

- ~ What is Spark and what it is purpose?
- ~ Why Spark is faster than Hadoop?
- ~ What is in-memory computation?
- ~ Features of Spark
- ~ Explain unified architecture of Spark
- ~ Components of the Spark unified architecture
- ~ Downloading and installing Spark standalone
- ~ Scala and Python overview, launching and using Sparks Scala and Python shell
- ~ Spark execution context
- ~ Driver
- ~ Executor
- ~ Master
- ~ Worker

=> The Resilient Distributed Datasets (RDD) :

- ~ Overview of RDD's
- ~ Features of RDD
- ~ RDD operations
- ~ RDD and pair RDDs and RDD performance
- ~ Flat maps and filters
- ~ Data loading in RDD
- ~ RDD deep dive
- ~ Partitions
- ~ Dependencies
- ~ Transformation in RDD
- ~ Action in RDD
- ~ Map
- ~ Filter
- ~ Filter map
- ~ Group by
- ~ Group by key
- ~ Reduce by key
- ~ Map partitions
- ~ Union
- ~ Join
- ~ Distinct

- ~ Coalesce
- ~ Key by
- ~ Partition by
- ~ Zip
- ~ Collect
- ~ Reduce by key
- ~ Aggregate
- ~ RDD Lineage
- ~ DAG for RDD
- ~ Limitations of Spark RDD
- ~ RDD persistence
- ~ Shared variables and broadcast variables
- ~ Accumulators

=> Spark SQL, DataFrames and Datasets :

- ~ Introducing Spark SQL
- ~ Introducing datasets and DataFrame
- ~ Data sources
- ~ Distributed SQL engine
- ~ Creating DataFrame
- ~ DataFrame operations
- ~ DataFrame from csv
- ~ DataFrame from db tables
- ~ DataFrame from hive NoSQL tabel
- ~ DataFrame from json
- ~ DataFrame from RDD
- ~ Different operations on DataFrame
- ~ Filter
- ~ Join
- ~ Group
- ~ Aggregation
- ~ Having
- ~ Where
- ~ User define function(UDF)
- ~ Grouping aggregation
- ~ Multiple grouping
- ~ More aggregation
- ~ Hash aggregation
- ~ Spark SQL vs RDD
- ~ Executing SQL commands and SQL-style functions on a DataFrame
- ~ Using DataFrames instead of RDD's
- ~ Different operations with dataframes with DataFrames
- ~ Word Count with DataFrames
- ~ DataFrames vs RDDs
- ~ Operations on DFs
- ~ Parquet files with Spark Sql Read, Write, Partitioning, Merging schema
- ~ ORC files
- ~ JSON files

=> Spark streaming :

- ~ Basic concepts of Spark Streaming
- ~ Linking
- ~ Initializing Streaming Context
- ~ Discretized Streams (DStreams)
- ~ Input DStreams and Receivers
- ~ Transformations on DStreams
- ~ Output operations on DStreams
- ~ DataFrame and SQL operations
- ~ MLlib operations
- ~ Caching / Persistence
- ~ Checkpointing
- ~ Accumulators, Broadcast Variables, and Checkpoints
- ~ Deploying applications
- ~ Performance tuning
- ~ Reducing the batch processing times
- ~ Setting the right batch interval
- ~ Memory tuning
- ~ Sliding window operations
- ~ Overview Spark Streaming and Structure Streaming and kafka streaming with kafka
- ~ Developing Spark Streaming applications Integration with Hbase
- ~ Kafka Twitter data setup
- ~ Writing Producer in Python
- ~ Writing Consumer in Python
- ~ Kafka Integration with Spark Streaming
- ~ Fault-tolerance semantics
- ~ Spark Cassandra

=> Spark Structure streaming :

- ~ Handling Event-time and Late Data
- ~ API using Datasets and DataFrames
- ~ Creating streaming DataFrames and streaming Datasets
- ~ Input Sources
- ~ Schema inference and partition of streaming DataFrames/Datasets
- ~ Operations on streaming DataFrames/Datasets
- ~ Basic Operations - Selection, Projection, Aggregation
- ~ Window Operations on Event Time
- ~ Handling Late Data and Watermarking
- ~ Types of time windows
- ~ Join Operations

- ~ *Stream-static Joins*
- ~ *Stream-stream Joins*
- ~ *Inner Joins with optional Watermarking*
- ~ *Outer Joins with Watermarking*
- ~ *Semi Joins with Watermarking*
- ~ *Support matrix for joins in streaming queries*
- ~ *Streaming Deduplication*
- ~ *Policy for handling multiple watermarks*
- ~ *Arbitrary Stateful Operations*
- ~ *Unsupported Operations*
- ~ *Limitation of global watermark*
- ~ *State Store*
- ~ *HDFS state store provider*
- ~ *RocksDB state store implementation*
- ~ *State Store and task locality*
- ~ *Starting Streaming Queries*

=> **Launching on a clusters :**

- ~ *Spark standalone*
- ~ *Running Spark on Mesos*
- ~ *Running Spark on YARN*
- ~ *Running Spark on Kubernetes*
- ~ *The Spark Standalone Web UI*

=> **PySpark Installtion :**

- ~ *Installtion using PyPi*
- ~ *Pyspark setup in local*
- ~ *Pyspark setup with anaconda*
- ~ *Pyspark setup with pycharm*

=> **PySpark DataFrame :**

- ~ *DataFrame creation*
- ~ *Viewing data*
- ~ *Accessing data*
- ~ *Applying a function*
- ~ *Grouping data*
- ~ *Object creation*
- ~ *Missing data*
- ~ *Grouping*
- ~ *Plotting*

=> **Spark Mlib :**

- ~ *Overview of Mlib*
- ~ *What is Machine Learning?*
- ~ *Supervised learning*
- ~ *Unsupervised learning*
- ~ *Basic statistics*
- ~ *Classification algorithms*
- ~ *Regression algorithms*
- ~ *Clustering algorithms*
- ~ *Collaborative filtering*
- ~ *Frequent pattern mining*
- ~ *Featurization*
- ~ *Pipelines*
- ~ *Persistence*
- ~ *Spark ml for ml*
- ~ *Collect training data*
- ~ *Different processing technique*
- ~ *Supervised learning*
- ~ *Linear regression*
- ~ *Logistic regression*
- ~ *Decision tree naive bayes*
- ~ *Recommender system*
- ~ *End to end case study with real time dataset*

=> **GraphX :**

- ~ *Overview*
- ~ *Graph operations*
- ~ *Graph builders*
- ~ *Graph algorithms*

=> **Spark configuration, monitoring and tuning :**

- ~ *Understand components of spark cluster*
- ~ *configure spark to modify the spark properties, environmental variables, or logging properties*
- ~ *Monitor Spark using the web UIs, metrics, and external instrumentation*

=> **Installation of Drill :**

- ~ *Installing Apache Drill for Mac and Linux*
- ~ *Running Drill In non-embedded and cluster mode*
- ~ *Overview of Drill web console*

=> **Connecting to Data sources :**

- ~ *Connecting to local file system*
- ~ *Understanding storage plugins and workspaces*
- ~ *Connecting to MySQL*
- ~ *Connecting to Mongo*
- ~ *Connecting to Kafka*
- ~ *Connecting to Hive*
- ~ *Connecting to HBase*
- ~ *Querying across data sources*

=> Introduction to Sqoop :

- ~ *Sqoop introduction*
- ~ *How Sqoop works?*
- ~ *Why we use Sqoop?*
- ~ *Features of Sqoop*

=> Sqoop Tools :

- ~ *Sqoop architecture and working*
- ~ *Using command aliases*
- ~ *Controlling the Hadoop installation*
- ~ *Using generic and specific arguments*
- ~ *Using options files to pass arguments*

=> Sqoop import :

- ~ *Purpose of Sqoop import*
- ~ *Connecting to a database server*
- ~ *Selecting the data to import*
- ~ *Free-form query imports*
- ~ *Controlling the import process*
- ~ *Controlling transaction isolation*
- ~ *Controlling type mapping*
- ~ *Incremental imports*
- ~ *File formats*
- ~ *Large objects*
- ~ *Importing data into Hive*
- ~ *Importing data into HBase*
- ~ *Importing data into Accumulo*
- ~ *Connecting to a Mainframe*

=> Sqoop export :

- ~ *Purpose of Sqoop export*
- ~ *Inserts vs Updates*
- ~ *Exports and Transactions*

=> Sqoop - Job :

- ~ *Create Job*
- ~ *Verify Job*
- ~ *Inspect Job*
- ~ *Execute Job*

=> Validation in Sqoop :

- ~ *Introduction to the validation*
- ~ *Purpose of Validation*
- ~ *Limitations of Validations*

=> Setup of Airflow :

- ~ *Components of Airflow*
- ~ *Installing Airflow on mac*
- ~ *Installing Airflow on linux*
- ~ *Installing Airflow on windows*
- ~ *Run Airflow locally*
- ~ *Introduction to the Airflow UI*
- ~ *What you need to know about the UI*
- ~ *Introduction to the Airflow CLI*

=> Core concepts of Airflow :

- ~ *What is DAG?*
- ~ *DAG skeleton*
- ~ *Default arguments*
- ~ *Instantiate a DAG*
- ~ *Jinja templating with Airflow*
- ~ *What are tasks?*
- ~ *What are operators?*
- ~ *How to setup dependencies?*
- ~ *What are hooks*
- ~ *What are executors*

=> Loading data to Data Warehouse :

- ~ *Set up*
- ~ *Connections*
- ~ *Load data from storage*
- ~ *Run SQL query*
- ~ *Use a hook to list storage objects.*
- ~ *Cross-Task communication (XComs)*
- ~ *Variables*

=> Advanced concepts in Airflow :

- ~ *Adios repetitive patterns*
- ~ *Minimising DAG's with SubDAG's*
- ~ *Adios SubDAG's, welcome taskgroups!*
- ~ *Sharing data between tasks with xcoms*
- ~ *Choosing a specific path in your DAG*
- ~ *How Tasks get triggered?*

=> Creating Plugins with Elasticsearch and PostgreSQL :

- ~ *Installation of Elasticsearch*
- ~ *How the plugin system works?*
- ~ *Creating a Hook interacting with Elasticsearch*

=> Testing Airflow DAGS's :

- ~ *Load test DAG's*

- ~ Unit test DAG's and operators
- ~ Unit test custom operators

=> Docker Image for Apache Airflow :

- ~ Introduction to Docker
- ~ Why custom image?
- ~ How to build your own image?
- ~ Extending vs. customizing the image
- ~ Executors
- ~ Configure celery executors
- ~ Running Airflow on docker with celery executor
- ~ Configure local executors
- ~ Running Airflow on docker with local executor
- ~ Service level agreement
- ~ Security: Authentication, Roles, Encryption

=> Monitoring Airflow :

- ~ Airflow monitoring with StatsD
- ~ Airflow monitoring with Prometheus
- ~ Airflow monitoring with Graphana
- ~ Error tracking with Sentry

=> Introduction to Zookeeper :

- ~ Introduction of Apache Zookeeper
- ~ Why we need Zookeeper?
- ~ What is Distributed system?

=> Internal structure :

- ~ Zookeeper Background
- ~ Architecture Diagram
- ~ Important Components

=> Data models and Znodes :

- ~ Data model and Znode structure
- ~ What is Apache Zookeeper Znodes?
- ~ Sessions and watches

=> Installation of Zookeeper :

- ~ Installation of Apache zookeeper
- ~ Configuration of Apache zookeeper
- ~ Starting Apache zookeeper server
- ~ CLI operations

=> Monitoring in Zookeeper - Kafka :

- ~ Operating system
- ~ JMX monitoring

=> Installation and setup oozie :

- ~ Installation of oozie on your machine

=> Introduction to Ambari :

- ~ What is Apache Ambari?
- ~ Overview of Apache Ambari
- ~ History of Apache Ambari
- ~ Goals of Apache Ambari
- ~ Features of Apache Ambari
- ~ Benefits of Apache Ambari
- ~ Why should you learn Apache Ambari?
- ~ Apache Ambari architecture
- ~ Internal workflow of Ambari

=> Core applications of Ambari :

- ~ Server
- ~ Agent
- ~ Web UI
- ~ Database

=> Ambari usage :

- ~ Provisioning of Hadoop cluster
- ~ Monitoring of Hadoop cluster
- ~ Management of Hadoop cluster

=> How is Ambari is different from Zookeeper? :

- ~ Basic task
- ~ Nature
- ~ Status maintenance

=> Introduction to Cloud Databricks :

- ~ Introduction about cloud
- ~ Why cloud is important
- ~ Introduction to Databricks
- ~ Creating zure free account
- ~ Azure Databricks architecture overview

=> Databricks clusters :

- ~ Overview of clusters
- ~ Azure Databricks cluster types
- ~ Azure Databricks cluster configuration
- ~ Creating Azure Databricks cluster
- ~ Azure Databricks cluster pool

=> Mounting Data Lake container to databricks :

- ~ Overview

- ~ *Databricks file system (DBFS)*
- ~ *Databricks mount overview*
- ~ *Creating Azure data lake storage*
- ~ *Creating Azure service principal*
- ~ *Mounting Azure data lake Storage*
- ~ *Secret scopes overview*
- ~ *Creating secret scope In key vault*
- ~ *Mounting Data lake using secrets*

=> Data ingestion - CSV files :

- ~ *Data ingestion overview*
- ~ *What is circuits file*
- ~ *Requirements*
- ~ *DataFrame reader*
- ~ *Select columns*
- ~ *DataFrame writer*

=> Data ingestion - JSON files :

- ~ *What is JSON File?*
- ~ *Write data*

=> Introduction to Atlas :

- ~ *What is Apache Atlas*
- ~ *Features of Apache Atlas*

=> Installation Atlas :

- ~ *Installation of Apache Atlas*

=> Atlas terminology :

- ~ *Relationships*
- ~ *Attributes*
- ~ *System specific typews*
- ~ *Data lineage*
- ~ *Classification*

=> Atlas UI :

- ~ *Basic search in Atlas UI*
- ~ *Advanced search in Atlas UI*
- ~ *What is a glossary term?*
- ~ *Use cases of glossary*

=> Introduction to Confluent :

- ~ *Overview of Confluent*
- ~ *Features of Confluent*

=> Getting started with Confluent :

- ~ *Free trail for Confluent cloud*
- ~ *Quick start for Apache Kafka using confluent cloud*
- ~ *Confluent cloud console basics*
- ~ *KSQLDB in confluent cloud*
- ~ *Manage schemas on confluent cloud*
- ~ *REST API quick start for confluent cloud developers*

=> Kafka Clusters :

- ~ *Features and limits by cluster type*
- ~ *Create a cluster with a console*
- ~ *Expand a dedicated cluster with console*
- ~ *Shrink a dedicated cluster with console*
- ~ *Cluster management API overview*
- ~ *Migrate topics on confluent cloud clusters*

=> Manage topics in cloud console :

- ~ *Overview*
- ~ *Create, edit and delete topics*
- ~ *Use the message browser*

=> Stream governance :

- ~ *Overview*
- ~ *Stream Lineage*
- ~ *Stream Catalog*
- ~ *Stream Quality*

=> Cluster linking :

- ~ *Overview*
- ~ *Quick tutorial*
- ~ *Share Data Across Clusters, Regions And Clouds*
- ~ *Mirror topics*
- ~ *Data migration*

=> Confluent platform with cloud :

- ~ *Confluent platform with cloud*
- ~ *Connecting Control Center To Confluent Cloud*
- ~ *Connect Clients to Confluent Cloud*
- ~ *Connecting Kafka to Confluent Cloud*
- ~ *Connecting Kafka Streams to Confluent Cloud*

=> Confluent cloud API :

- ~ *Confluent Cloud API*
- ~ *Metrics API*

=> Confluent CLI :

- ~ *Installing Confluent CLI*
- ~ *Configuring Confluent CLI*

~ *Manage Confluent*

=> Introduction to AWS :

- ~ *What is AWS?*
- ~ *AWS solutions for BigData?*
- ~ *What is Data ingestion?*

=> Cloud computing on AWS :

- ~ *What is cloud computing?*
- ~ *Cloud services by AWS*
- ~ *Cloud Computing Tools on AWS*
- ~ *Cloud Computing Tools Pricing*
- ~ *Introduction to AWS S3*
- ~ *Creating your First S3 bucket*
- ~ *Uploading an object to your Bucket*
- ~ *Download an object*
- ~ *Copy your object to a Folder*
- ~ *Delete your object and Bucket*

=> AWS Storage :

- ~ *Introduction to AWS storage*
- ~ *What is Simple storage Service (S3)?*
- ~ *How S3 works?*
- ~ *Use cases of S3*
- ~ *Storage Hierarchy in S3*
- ~ *Buckets in S3*
- ~ *S3 pricing*
- ~ *Creating and S3 bucket*
- ~ *Uploading objects to the S3 bucket*
- ~ *What is Amazon S3 Glacier?*
- ~ *Glacier Vaults*
- ~ *Glacier Archives*
- ~ *Accessing Amazon S3 Glacier*

=> AWS Databases :

- ~ *Enabling object versioning in the S3 bucket*
- ~ *Databases on AWS*
- ~ *Introduction to Amazon Relational Database Service(RDS)*
- ~ *Features of RDS*
- ~ *Engine types Configuration*
- ~ *RDS Pricing*
- ~ *Creating a SQL Server DB Instance*
- ~ *Introduction to Amazon Aurora*
- ~ *Benefits of Amazon Aurora*
- ~ *Create an Aurora DB cluster*
- ~ *Introduction to Amazon Dynamo DB*
- ~ *Components of DynamoDB*
- ~ *Creating a DynamoDB table.*
- ~ *Connecting to the DB Instance From Your Machine*
- ~ *DynamoDB Items and Indexes*
- ~ *Dynamo Backup and Restore*

=> Collection :

- ~ *Collection*
- ~ *Collection Section Introduction*
- ~ *Kinesis Data Streams Overview*
- ~ *Hot shard*
- ~ *Kinesis Producers*
- ~ *Kinesis Consumers*
- ~ *Kinesis Enhanced Fan Out*
- ~ *Kinesis Scaling*
- ~ *Kinesis - Handling Duplicate Records*
- ~ *Kinesis Security*
- ~ *Kinesis Data Firehose*
- ~ *CloudWatch Subscription Filters with Kinesis*
- ~ *SQS Overview*
- ~ *SQS Hands On*
- ~ *Kinesis Data Streams vs SQS*
- ~ *IoT Overview*
- ~ *IoT Components Deep Dive*
- ~ *Database Migration Service (DMS)*
- ~ *Direct Connect*
- ~ *AWS Snow Family Overview*
- ~ *AWS Snow Family Hands On*
- ~ *MSK: Managed Streaming for Apache Kafka*
- ~ *Kinesis vs MSK*

=> Storage :

- ~ *S3 Overview*
- ~ *S3 Hands On*
- ~ *S3 Security: Bucket Policy*
- ~ *S3 Security: Bucket Policy Hands On*
- ~ *S3 Website Overview*
- ~ *S3 Website Hands On*
- ~ *S3 Versioning Overview*
- ~ *S3 Versioning Hands On*
- ~ *S3 Server Access Logging*
- ~ *S3 Server Access Logging Hands On*
- ~ *S3 Replication Overview*
- ~ *S3 Replication Hands On*

- ~ S3 Storage Classes Overview
- ~ S3 Storage Classes Hands On
- ~ S3 Glacier Vault Lock & S3 Object Lock
- ~ S3 Encryption
- ~ Shared Responsibility Model for S3
- ~ DynamoDB Overview
- ~ DynamoDB RCU & WCU
- ~ DynamoDB Partitions
- ~ DynamoDB APIs
- ~ DynamoDB Indexes: LSI & GSI
- ~ DynamoDB DAX
- ~ DynamoDB Streams
- ~ DynamoDB TTL
- ~ DynamoDB Security
- ~ DynamoDB: Storing Large Objects

=> Processing :

- ~ Section Introduction: Processing
- ~ Lambda Overview
- ~ Lambda Hands On
- ~ [Exercise] AWS Lambda
- ~ Why Cloud & Big Data on Cloud
- ~ What is Virtual Machine
- ~ On-Premise vs Cloud Setup
- ~ Major Vendors of Hadoop Distribution
- ~ Hdfs vs S3
- ~ Important Instances in AWS
- ~ Spark Basics
- ~ Why spark is difficult
- ~ Overview of EMR
- ~ What is EMR
- ~ Tez vs mapreduce
- ~ Launching an emr cluster
- ~ connecting to your cluster
- ~ Create a tunnel for web ui
- ~ Use Hue to interact with EMR
- ~ Transient vs Long Running Cluster Running
- ~ Copy File From S3 to Local Zeppelin Notebook
- ~ How to Create a VM
- ~ S3 & EBS
- ~ Public ip Vs Private Ip
- ~ Aws Command Line Interface
- ~ AWS Glue
- ~ Introduction to Amazon Redshift
- ~ Redshift Master Slave Architecture
- ~ redshift demo
- ~ redshift spectrum
- ~ Redshift Distribution Styles
- ~ Redshift Fault Tolerance
- ~ Redshift Sort Keys

=> Analysis :

- ~ Section Introduction: Analysis
- ~ Intro to Kinesis Analytics
- ~ Kinesis Analytics Costs; RANDOM_CUT_FOREST
- ~ Intro to Opensearch (formerly Elasticsearch)
- ~ Amazon Opensearch Service
- ~ Opensearch Features
- ~ What is Athena
- ~ When do we require Athena What problem Athena Solve How Athena Works
- ~ Athena Pricing
- ~ Athena Practical Demonstration

=> Visualization :

- ~ The course overview
- ~ big data analytics and aws
- ~ How Quicksight is different than other BI Tools
- ~ BI solution based on quicksight
- ~ how to get started with quicksight
- ~ Performance Your first analysis
- ~ AWS Big data ecosystem
- ~ importing files to quicksight
- ~ importing databases to quicksight
- ~ importing data from saas services to quicksight
- ~ edit existing data sources in quicksight
- ~ Joining datasets
- ~ using functions
- ~ applying filters
- ~ understanding spice layer
- ~ Creating a Quicksight Analysis
- ~ Explore various charting options
- ~ Exploring various Map options
- ~ Exploring various table and other visual options
- ~ Mini project Overview
- ~ Mini Project Architecture
- ~ Data ingestion for mini project
- ~ Reports and dashboards

=> Introducing Google Cloud Platform :

- ~ Google platform fundamentals overview.

~ Google cloud platform Big Data products.

=> Compute and Storage Fundamentals :

- ~ CPUs on demand (compute engine).
- ~ A global filesystem (cloud storage).
- ~ CloudShell.
- ~ Set up an Ingest-Transform-Publish data processing pipeline.

=> Data Analytics on the Cloud :

- ~ Stepping-stones to the cloud.
- ~ Cloud SQL: your SQL database on the cloud.
- ~ Importing data into CloudSQL and running queries.
- ~ Spark on Dataproc.
- ~ Machine Learning recommendations with Spark on Dataproc.

=> Scaling Data Analysis :

- ~ Fast random access.
- ~ Datalab
- ~ BigQuery.

=> Data Processing Architectures :

- ~ Message-oriented architectures with Pub/Sub.
- ~ Real time streaming using Pub/Sub
- ~ Creating pipelines with Dataflow.
- ~ Reference architecture for real-time and batch data processing.
- ~ Google Online Transfer
- ~ Cloud Storage Transfer
- ~ Google Cloud BigTable
- ~ Google Cloud Dataflow
- ~ Google Cloud Dataproc
- ~ Google Cloud Pub/Sub
- ~ Google Cloud Composer
- ~ Google Cloud Data Fusion
- ~ Automating ETL jobs with composer and fusion
- ~ Google Cloud data catalog
- ~ Google Data studio
- ~ Architecture: Optimizing large-scale Ingestion
- ~ GCP Big Data Outro

=> Introduction to cloud :

- ~ Introduction to Cloud Computing
- ~ Cloud models
- ~ Different cloud providers

=> Regions and Availability Zones :

- ~ Understanding regions and availability zones in Azure
- ~ Creating microsoft Azure account

=> Resource Hierarchy :

- ~ Understanding resource hierchy
- ~ Demo on resource hierchy
- ~ Resource groups, subscription and managment groups
- ~ Active directory

=> Introduction to azure cloud computing :

- ~ Azure services overview
- ~ Managed and unmanaged service
- ~ Demo create Azure SQL Database service

=> Introduction to data engineer profile :

- ~ Introduction to data engineer Technologies
- ~ Data engineer role and responsibility
- ~ Introduction to data engineer technologies

=> Azure sql database :

- ~ Module Introduction
- ~ Introduction
- ~ Why choosing SQL Server in Azure
- ~ Azure laas vs Paas database offerings
- ~ SQL server paas deployment options
- ~ Introduction to Azure sql server in virtual machine
- ~ SQL Server in Azure virtual machine
- ~ SQL server in azure virtual machine
- ~ Introduction Azure single database
- ~ Demo Azure single database
- ~ Purchasing Models and service tier
- ~ Azure database vs azure datawarehouse
- ~ Introduction elastic data pool
- ~ Azure Elastic Database
- ~ Azure Elastic Database
- ~ Introduction managed instance Database
- ~ Azure managed instance Database
- ~ Difference between on premises and manged instance
- ~ Service tiers for managed instance
- ~ Mangement operations
- ~ Demo managed instance

=> Azure synapse :

- ~ Module introduction
- ~ Why warehouse in cloud?
- ~ Traditional vs modern warehouse architecture
- ~ What is synapse analytics service?

- ~ Demo create dedicated sql pool
- ~ Demo connect sql pool with ssms
- ~ Demo create Azure synapse analytics workspace
- ~ Demo explore synapse studio v2
- ~ Demo create dedicated sql pool and spark pool from inside synapse studio
- ~ Demo analyse data using dedicated sql pool
- ~ Analyse data using apache spark notebook
- ~ Demo analyse data using serverless sql
- ~ Demo data factory copy tool from synapse integrate tab
- ~ Demo monitor synapse analytics studio
- ~ Azure synapse a game changer
- ~ Azure synapse benefits

=> Azure databricks :

- ~ Spark Basics
- ~ Why spark is difficult?
- ~ Why databricks in cloud?
- ~ How to save databricks demo cost
- ~ Demo provision databricks, clusters and workbook
- ~ Demo mount data lake to databricks DBFS
- ~ Demo Explore, Analyze, Clean, Transform and load data in databricks
- ~ Azure databricks cluster
- ~ Azure databricks other important components
- ~ Databricks monitoring

=> Azure data factory :

- ~ What is Data Factory?
- ~ Data factory in azure ecosystem
- ~ Provision Azure data factory instance
- ~ Data factory components
- ~ Data factory pipeline and activities
- ~ Data factory linked service and datasets
- ~ Data factory integration runtime
- ~ Data factory triggers
- ~ Data factory copy data activity demo
- ~ Copy data activity using author demo
- ~ Secure input and output property
- ~ User properties
- ~ Data factory parameters
- ~ Data flow concept
- ~ Mapping data flow
- ~ Wrangling data flow
- ~ Monitoring
- ~ Metrics and diagnostic settings

=> Introduction to SQL :

- ~ Why SQL?
- ~ Application of SQL
- ~ Characteristics of SQL
- ~ Installation guide
- ~ Connection & set up
- ~ Create database
- ~ RENAME database
- ~ Drop database
- ~ SELECT database

=> Data type of SQL :

- ~ Binary datatypes
- ~ Approximate numeric datatype
- ~ Exact numeric datatype
- ~ Character string datatype
- ~ Date and time datatype

=> Introduction to SQL syntax :

- ~ SQL SELECT statement
- ~ SQL WHERE clause
- ~ SQL DISTINCT clause
- ~ SQL AND/OR clause
- ~ SQL IN clause
- ~ SQL LIKE clause
- ~ SQL BETWEEN clause
- ~ SQL ORDER BY clause
- ~ SQL GROUP BY clause
- ~ SQL COUNT clause
- ~ SQL HAVING clause
- ~ SQL CREATE TABLE statement
- ~ SQL DROP TABLE statement
- ~ SQL CREATE INDEX statement
- ~ SQL DROP INDEX statement
- ~ SQL DESC statement
- ~ SQL TRUNCATE TABLE statement
- ~ SQL ALTER TABLE statement
- ~ SQL ALTER TABLE statement(rename)
- ~ SQL INSERT INTO statement
- ~ SQL UPDATE statement
- ~ SQL DELETE statement
- ~ SQL CREATE DATABASE statement
- ~ SQL DROP DATABASE statement
- ~ SQL USE statement
- ~ SQL COMMIT statement

~ SQL ROLLBACK statement

=> Operators in SQL :

- ~ Arithmetic operators
- ~ Comparison operators
- ~ Logical operators
- ~ Operators used to negate conditions

=> SQL Query :

- ~ CREATE table
- ~ CREATE table with PRIMARY KEY
- ~ CREATE table with FOREIGN KEY
- ~ DELETE table
- ~ TRUNCATE table
- ~ TEMP table
- ~ RENAME table
- ~ DROP table
- ~ COPY table
- ~ ALTER table
- ~ INSERT query
- ~ UPDATE query
- ~ DELETE query

=> SELECT Query :

- ~ SELECT statement
- ~ SELECT UNIQUE
- ~ SELECT DISTINCT
- ~ SELECT COUNT
- ~ SELECT TOP
- ~ SELECT LAST
- ~ SELECT RANDOM
- ~ SELECT IN
- ~ SELECT RANDOM
- ~ SELECT MULTIPLE
- ~ SELECT DATE
- ~ SELECT SUM
- ~ SELECT NULL
- ~ SELECT group by

=> SQL Clause :

- ~ WHERE clause
- ~ AND clause
- ~ OR clause
- ~ WITH clause
- ~ AS clause
- ~ HAVING clause
- ~ Like clause
- ~ IS NULL clause
- ~ UNION clause
- ~ UNION All clause
- ~ Top clause

=> SQL Order By :

- ~ ORDER BY clause
- ~ ORDER BY ASC
- ~ ORDER BY DESC
- ~ ORDER BY

=> SQL Constraints :

- ~ NOT NULL constraint
- ~ DEFAULT constraint
- ~ UNIQUE constraint
- ~ PRIMARY key
- ~ FOREIGN key
- ~ CHECK constraint
- ~ INDEX
- ~ Introduction to views

=> Functions(Aggregate) :

- ~ Conditional aggregation
- ~ List concatenation
- ~ SUM
- ~ AVG()
- ~ Count
- ~ Min
- ~ Max

=> SQL Joins :

- ~ INNER JOIN
- ~ LEFT JOIN
- ~ RIGHT JOIN
- ~ FULL JOIN
- ~ SELF JOIN
- ~ CARTESIAN JOIN

=> Views in SQL :

- ~ Creating view
- ~ Creating view from single table
- ~ Creating view from multiple tables
- ~ Delete view

=> Window Functions :

- ~ Setting up a flag if other rows have a common property
- ~ Finding "Out-of-Sequence" records using the LAG() function
- ~ Getting a running total
- ~ Adding the total rows selected to every row
- ~ Getting the N most recent rows over multiple grouping

=> Subqueries :

- ~ Subquery in FROM clause
- ~ Subquery in SELECT clause
- ~ Subquery in WHERE clause
- ~ Correlated subqueries
- ~ Filter query results using query on different table
- ~ Subqueries in FROM clause
- ~ Subqueries in WHERE clause

=> Stored Procedures :

- ~ Create and call a stored procedure
- ~ In and out parameters
- ~ If, Elseif and Else
- ~ Case
- ~ While
- ~ Repeat
- ~ Cursor
- ~ Loop
- ~ Error handling
- ~ User defined errors
- ~ Transactions
- ~ Stored functions

=> Triggers :

- ~ CREATE TRIGGER
- ~ Use trigger to manage a "Recycle Bin" for deleted items

=> AWS Lambda :

- ~ What is AWS Lambda and Why it is needed?
- ~ Features & Limitations of Lambda
- ~ Hello world program using Lambda
- ~ Auto trigger Lambda Function based on S3 file upload notification
- ~ Access other services from Lambda

=> AWS Secret Manager :

- ~ Create and Maintain secrets
- ~ Accessing credentials from Secret Manager using Boto3

=> AWS Glue :

- ~ Setting up cluster in Glue
- ~ Properties of Glue
- ~ Creating Catalogs in Glue
- ~ Read partitioned Data
- ~ Bulk and Incremental data processing from S3 in Glue
- ~ Data Processing in Glue
- ~ Glue jobs and Triggers

=> AWS SQS :

- ~ What is SQS?
- ~ Different types of SQS?
- ~ At-Least once and Exactly once delivery via SQS
- ~ Ingesting data to SQS
- ~ Inflight messages
- ~ Consume data from SQS
- ~ Dead Letter Queue

=> AWS Kinesis :

- ~ Ingesting real time data in Kafka Streams
- ~ Consume real time data from Kafka Streams

=> AWS Cloudwatch :

- ~ Cron based triggers
- ~ Event pattern based triggers
- ~ Monitoring & Alerting using Cloudwatch

=> AWS QuickSight :

- ~ Creating business dashboards using Quick sight

Pro Operating Systems

Topic Name : APTITUDE

Sub-topic Name : APTITUDE

Course link : <https://ineuron.ai/course/Pro-Operating-Systems>

Course Description :-

This course is designed mostly for computer science subject OPERATING SYSTEM test takers.

Course Features :-

=> Quizzes

=> Course completion certificate

What you will learn :-

=> OS Theoretical Test

=> OS Practical Test

Requirements :-

=> System with minimum i3 processor or better

=> At least 4 GB of RAM

=> Working internet connection

=> Dedication to solve

Curriculum details :-

=> Operating System Test :

- ~ Operating System Test 1
- ~ Operating System Test 2
- ~ Operating System Test 3
- ~ Operating System Test 4
- ~ Operating System Test 5
- ~ Operating System Test 6
- ~ Operating System Test 7
- ~ Operating System Test 8
- ~ Operating System Test 9
- ~ Operating System Test 10
- ~ Operating System Test 11
- ~ Operating System Test 12
- ~ Operating System Test 13
- ~ Operating System Test 14

Socket io Crash Course

Topic Name : WEB DEVELOPEMENT

Sub-topic Name : FULL STACK WEB DEVELOPMENT

Course link : <https://ineuron.ai/course/Socket-io-Crash-Course>

Course Description :-

This course will help you to grab the fundamentals of socket.io .

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Socket IO

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

=> Socket IO Crash Course :

~ Socket IO

=> NaN :

- ~ NaN
- ~ NaN
- ~ NaN
- ~ NaN
- ~ NaN
- ~ NaN

A Job Ready Bootcamp in C++, DSA and IOT Tech Neuron

Topic Name : PROGRAMMING

Sub-topic Name : C++

Course link : <https://ineuron.ai/course/A-Job-Ready-Bootcamp-in--C++,-DSA-and-IOT-Tech-Neuron>

Course Description :-

C++ Job Ready course has been created specifically to familiarize you with the concepts & applications of C++ in industry. This Course is for the students who want to build strong concepts & theories with Project Building with data structures and IOT applications.

Through this course, you will be confident enough to crack any kind of interview related to C++.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Flow Control Statements
- => Arrays and Strings
- => Object Oriented Programming
- => Memory management
- => Exception handling
- => File Management in C++
- => Standard Template Library
- => Arduino Simulation Overview
- => Data Structures and its Implementation in C++
- => FAANG interview Preparation
- => Arduino Based Projects
- => Resume development

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Curriculum details :-

- => Introduction :
 - ~ Introduction to C++ Language
 - ~ Features of C++
 - ~ History of C++
 - ~ Version history of C++
 - ~ An introduction to programming for absolute beginner
 - ~ How to develop a software using C++?
 - ~ Setup Environment on Windows
 - ~ Setup Environment on Mac
 - ~ Setup Environment on Linux
 - ~ Exploring first program
 - ~ Tokens: Constant, Variables and Keywords
 - ~ Data Types, Variable Declaration
 - ~ Input/output statements: cout and cin
 - ~ unary operator
 - ~ Arithmetic Operators
 - ~ Bitwise Operators
 - ~ Relational Operators
 - ~ Logical Operators
 - ~ Assignment Operators
 - ~ Other Operators
- => Flow Control Statements :
 - ~ Decision Control: if, if else, conditional operator
 - ~ Decision Control: Nested if else, if else ladder

- ~ Iterative Control: while
- ~ Iterative Control: do while
- ~ Iterative Control: for Loop
- ~ Break and Continue
- ~ Nested Loops
- ~ Star Pattern Problems
- ~ Switch case control
- ~ Menu Driven Programming

=> Functions and Recursion :

- ~ What is a function?
- ~ usages of function in modular coding
- ~ Type of function in C++
- ~ predefined function
- ~ user defined function
- ~ Tracing a code with multiple functions
- ~ merits and demerits of function
- ~ Ways to define a function
- ~ Recursion
- ~ Inline function
- ~ Default Arguments

=> Making the hard jargon simple - Pointers :

- ~ Pointers Introduction
- ~ Address of operator (&)
- ~ Dereferencing operator (*)
- ~ Base Address
- ~ Extended Concept of Pointers
- ~ Pointers Arithmetic
- ~ Application of pointers
- ~ Call by value
- ~ call by address
- ~ Reference Variable
- ~ call by reference
- ~ Difference between pointers and reference variable?
- ~ Types of pointers
- ~ Wild Pointer
- ~ dangling pointer
- ~ null pointer
- ~ void pointer
- ~ Function pointers

=> Arrays and Strings :

- ~ Array basics
- ~ Declaring Arrays
- ~ Initializing Arrays
- ~ Accessing Array Elements
- ~ Two Dimensional
- ~ Multidimensional Arrays
- ~ pointers to an array
- ~ passing arrays to function
- ~ array of pointers
- ~ pointer to array

=> Strings :

- ~ String basics
- ~ String and Functions
- ~ Handling Multiple strings
- ~ Handling Strings with pointers
- ~ Assignment
- ~ Concatenation
- ~ Substrings
- ~ Character access
- ~ String Utilities
- ~ String comparison
- ~ String I/O
- ~ String Searching
- ~ String reverse
- ~ string Transformation
- ~ String length

=> Object Oriented Programming :

- ~ Introduction to OOP
- ~ Object oriented Vs procedural programming
- ~ key principals of OOPS
- ~ Encapsulation through structure
- ~ Encapsulation through classes
- ~ Classes and Objects
- ~ Access specifier
- ~ Instance Members
- ~ Static members
- ~ Function call by passing object and returning object
- ~ Function Polymorphism (Function overloading)
- ~ Constructor
- ~ Constructor overloading
- ~ Default constructor
- ~ Copy constructor
- ~ Destructor
- ~ Deep copy Vs shallow copy
- ~ Operator Overloading

- ~ Overloading of pre and post increment operator
- ~ Friend Function
- ~ Friend operator
- ~ Benefits of Friend function
- ~ Overloading of insertion and extraction operator
- ~ Abstraction in c++
- ~ Data hiding in c++
- ~ Private constructor in C++
- ~ Private Destructor in C++

=> Memory Management with Pointers :

- ~ What is Memory Management?
- ~ Why is memory management required?
- ~ Object Pointer
- ~ The this pointer
- ~ New Operator
- ~ Delete Operator
- ~ Memory Leak

=> Inheritance :

- ~ C++ Inheritance
- ~ Advantage of C++ Inheritance
- ~ Types Of Inheritance
- ~ Single inheritance
- ~ Multiple inheritance
- ~ Hierarchical inheritance
- ~ Multilevel inheritance
- ~ Hybrid inheritance
- ~ Visibility mode in inheritance
- ~ Public , private and protected
- ~ Constructor and destructor in inheritance
- ~ Diamond problem
- ~ Inheritance method
- ~ Function overriding
- ~ Function hiding
- ~ Base pointer
- ~ Virtual function
- ~ Pure Virtual function
- ~ Abstract class in c++
- ~ Virtual destructor

=> Exception handling :

- ~ History of Exception handling
- ~ Error Vs exception
- ~ Run time Exception and compile time Exception
- ~ C++ Standard Exceptions
- ~ Demo of exception one by one
- ~ Try
- ~ Catch
- ~ Throw
- ~ Catch all
- ~ Define New Exceptions
- ~ Handle Any Type of Exceptions

=> File Management in C++ :

- ~ What is file handling?
- ~ Introduction to stream
- ~ ofstream
- ~ ifstream
- ~ fstream
- ~ Txt file vs binary file
- ~ Opening a File
- ~ Mode of file opening
- ~ Writing data to a File
- ~ appending data to a file
- ~ Reading data from a File
- ~ Close a File
- ~ Object by object reading and writing
- ~ Renaming a file
- ~ Removing a file
- ~ File Position Pointers

=> Standard Template Library :

- ~ Template
- ~ Overview of STL
- ~ Iterator
- ~ Types of Iterators
- ~ Sequence Containers
- ~ Vector
- ~ List
- ~ Deque
- ~ Arrays
- ~ forward_list
- ~ Container Adaptor
- ~ Queue
- ~ Priority Queue
- ~ Stack
- ~ Associative Containers
- ~ Set
- ~ Multiset

- ~ Map
- ~ Multimap
- ~ Unordered Associative Containers
- ~ Unordered set
- ~ Unordered multiset
- ~ Unordered map
- ~ Unordered multimap
- ~ Functors
- ~ Function Pointers
- ~ lambda
- ~ String
- ~ Pair
- ~ Tuple
- ~ Algorithms

=> Data Structures and its Implementation in C++ :

- ~ Introduction to Data Structures
- ~ Why you should learn data structure?
- ~ use case of data structure
- ~ Why product based companies focus on data structure

=> All about Arrays :

- ~ Down side of using conventional arrays
- ~ Array data structure
- ~ Dynamic Arrays

=> Linked List :

- ~ Singly Linked List
- ~ Doubly Linked List
- ~ Circular Linked List
- ~ Circular Doubly Linked List

=> Stack and Queues :

- ~ Stack Introduction
- ~ Implementation of Stack using arrays
- ~ Implementation of Stack using Linked List
- ~ Queue Introduction
- ~ Implementation of Queue using arrays
- ~ Implementation of Queue using Linked List
- ~ Two way stack
- ~ Double Ended Queue
- ~ Priority Queue

=> Tree :

- ~ Tree Introduction
- ~ Binary Tree and its variations
- ~ Binary Search Tree
- ~ Implementation of BST

=> Graph :

- ~ Graph Introduction
- ~ Implementation of Graph

=> Competitive Programming :

- ~ Introduction to Competitive Programming
- ~ Develop solving approach with 20 examples

=> Project Work :

- ~ Number Guessing Game
- ~ Employee Record Management
- ~ Book Record Management
- ~ Library Management System
- ~ Quiz Master
- ~ Tic Tac Toe Game

=> Industry/IOT based Project Work :

- ~ Applications of C++ in IOT

=> Arduino Simulation Overview :

- ~ Arduino introduction
- ~ usages of Arduino in real time
- ~ basic component of Arduino
- ~ pin diagram of Arduino
- ~ introduction of sensors
- ~ environment setup for Arduino
- ~ Controlling Element
- ~ Blinking LED
- ~ Push Button
- ~ Potentiometer Controller
- ~ Servo Motor
- ~ DC Motor
- ~ Photo Resistor

=> Arduino Based Projects :

- ~ Project Detail description
- ~ business use case of this project
- ~ Project architecture
- ~ project setup
- ~ Component identification for project
- ~ Project 1 - Street Light Project
- ~ Project 2 - Intruder Buzzer System Design
- ~ Project 3 - Ice Cream Factor Sensor Design

- ~ Project 4 - Passive Infrared
- ~ Project 5 - Designing African Home with PIR Sensor
- ~ Project 6 - Agriculture Design - Moisture Sensor
- ~ Project 7 - Music Generator Sensor Design
- ~ conclusion of project
- ~ Production of project
- ~ integration in real time

=> FAANG interview Preparation :

- ~ Overview of FAANG companies
- ~ Interview Preparation guide for Amazon
- ~ Interview Preparation guide for Google
- ~ Interview Preparation Guide for Microsoft
- ~ Interview Preparation Pro Tips from Industrial Mentors
- ~ Interview Questions and their solutions
- ~ 100+ MCQs

=> Resume development :

- ~ Key points for your resume
- ~ Templates for resume
- ~ Project for your resume
- ~ prepare your GIT
- ~ prepare your social media profile
- ~ prepare your demo for your resume
- ~ Detail project report
- ~ resume verification
- ~ place where you can apply for job
- ~ Final touch
- ~ Go get your Dream job

=> 300+ Practice Problems :

- ~ Section -1: Introduction - 30 Problems

=> 301+ Practice Problems :

- ~ Section -2: Flow Control Statements - 80 Problems

=> 302+ Practice Problems :

- ~ Section -3: Functions and Recursion - 40 Problems

=> 303+ Practice Problems :

- ~ Section -4: Making the hard jargon simple - Pointers -10 Problems

=> 304+ Practice Problems :

- ~ Section -5: Arrays and Strings - 40 Problems

=> 305+ Practice Problems :

- ~ Section -6: Object Oriented Programming - 30 Problems

=> 306+ Practice Problems :

- ~ Section -7: Memory Management - 10 Problems

=> 307+ Practice Problems :

- ~ Section -8: Standard Template Library - 30 Problems

=> 308+ Practice Problems :

- ~ Section -1: DSA All about Arrays - 15 Problems

=> 309+ Practice Problems :

- ~ Section -2: DSA Linked List - 15 Problems

=> 310+ Practice Problems :

- ~ Section -3: DSA Stack and Queues - 15 Problems

=> 311+ Practice Problems :

- ~ Section -4: DSA Tree - 5 Problems

=> 312+ Practice Problems :

- ~ Section -5: DSA Graph - 5 Problems

=> 313+ Practice Problems :

- ~ Section -6: DSA Algorithms - 5 Problems

=> Mini-Challenges :

- ~ It will be assigned by mentor after every major module

Linux

Topic Name : DEVOPS

Sub-topic Name : LINUX

Course link : <https://ineuron.ai/course/Linux>

Course Description :-

This Linux course looks at the tools and techniques that Linux system administrators and end-users use on a daily basis to complete their tasks in a Linux environment.

Course Features :-

- => Source Code
- => Downloadable Resources
- => Quiz Questions
- => Completion Certificate

What you will learn :-

- => Linux Introduction
- => Setting up Our Linux Space
- => Linux Concepts
- => Package Management
- => Linux Commands
- => Working with Terminal
- => Permissions & Security

Requirements :-

- => A system with Internet Connection
- => Your dedication

Instructors :-

=> Sourangshu Pal :

~ Visual Computing Engineer and instructor at iNeuron.ai having 3 years of diverse experience in the discipline of visual computing with specialization in Deep Learning and Computer Graphics. Loves to analyze, process, and model visual data then interpret the insights to create actionable plans for solving challenging business problems.

Curriculum details :-

=> Linux Introduction :

- ~ Introduction to Linux Preview
- ~ What is Linux
- ~ Important Pieces in Linux
- ~ Features of Linux
- ~ Evolution of Linux
- ~ Differences between Windows and Linux

=> Setting up Our Linux Space :

- ~ Downloading Necessary tools Preview
- ~ Installing Ubuntu in Windows
- ~ What is SSH?
- ~ Install SSH Clients
- ~ Setting up SSH in Ubuntu VM
- ~ How to do SSH to your Ubuntu VM?
- ~ Setting Up Passwordless SSH

=> Linux Concepts :

- ~ What is Kernel Preview
- ~ Types of Kernel
- ~ What is Shell
- ~ Types of Shell
- ~ Distro in Linux
- ~ Linux Boot Process
- ~ File System
- ~ RunLevels in Linux
- ~ Filetypes of Linux

=> Package Management :

- ~ Package Management
- ~ Package Managers & DPKG
- ~ Working with APT & APT GET
- ~ Apt-get Advanced Part 1
- ~ Apt-get Advanced Part 2

=> Linux Commands :

- ~ *Linux Commands Part1*
- ~ *Linux Commands Part2*
- ~ *Linux Commands Part3*
- ~ *Linux Commands Part4*
- ~ *Cat Command Usages*

=> Working with Terminal :

- ~ *File Archival*
- ~ *File Compression*
- ~ *Files and Patterns Search*
- ~ *Input-Output Redirection*
- ~ *Working with Vi Editor*
- ~ *Advanced Vi Editor Part 1*
- ~ *Advanced Vi Editor Part 2*

=> Permissions & Security :

- ~ *Types of Account in Linux*
- ~ *User Management*
- ~ *Group Management*
- ~ *Files Access Controls*
- ~ *Linux File Permissions*
- ~ *Modifying File Ownership*
- ~ *Sudoers in Linux*
- ~ *Cronjobs*
- ~ *SCP*
- ~ *Special Permissions*
- ~ *System Management*
- ~ *System tools*
- ~ *Hard link and Soft link*
- ~ *Aliasing in Linux*
- ~ *Creating users in Multiple ways*

=> Linux in AWS Cloud- Deploy an App in EC2 :

- ~ *Launching an Ubuntu VM and SSH Setup*
- ~ *Package installation in VM*
- ~ *Running our Calculator App*
- ~ *Gunicorn & Nginx Setup*
- ~ *Creating a Gunicorn Service*
- ~ *Attaching an Elastic IP*
- ~ *Attaching OpenSSL Certificates for HTTPS*

Vuejs

Topic Name : WEB DEVELOPEMENT

Sub-topic Name : VUE JS

Course link : <https://ineuron.ai/course/Vuejs>

Course Description :-

VueJS is the shooting star in the world of JavaScript frameworks, regardless of whatever measure you choose (Google Trends, Tweets, etc.). This course covers the most recent version of Vue in great depth and from the ground up. In this course, we will go over all of the fundamental of VueJs. Vue JS and other frontend frameworks are incredibly popular because they provide the same dynamic, fantastic user experience that we have come to expect from mobile applications - but now in the browsers as well. And it is no surprise that positions requiring frontend framework expertise such as VueJS are among the highest-paying in the business!

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => VueJs project structure
- => VueJs data types and methods
- => Passing data to props
- => Adding editable forms in todo
- => Passing methods in vueJs

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

=> Getting Started With VueJS :

- ~ Introduction to Vue JS
- ~ Important note on Vue docs
- ~ Vue web page via CDN
- ~ Injecting Vue on web page
- ~ Another method to add app

=> Basics of VueJS :

- ~ A nice card in Vue
- ~ Directives in VueJS
- ~ Handling Arrays in VueJS
- ~ loops and assignment in VueJS
- ~ Handling Booleans and conditionals in VueJS
- ~ Login and logout in VueJS
- ~ Why people avoid v-show

=> 2 way binding in VueJS :

- ~ Getting the values from html in VUEJS

=> 3 way binding in VueJS :

- ~ Model the data in VueJS

=> 4 way binding in VueJS :

- ~ Computed and methods in VueJS

=> 5 way binding in VueJS :

- ~ Handling computed in VueJS

=> 6 way binding in VueJS :

- ~ Assignment time in VueJS

=> 7 way binding in VueJS :

- ~ Life Cycle hooks in VueJS

=> Moving to Vue cli :

- ~ Vue cli and GUI

- ~ Redo the project in VueJS

- ~ Setup you HTML for counter app

- ~ Counter app and assignment

=> Conditionals in VueJS :

- ~ bulding logics for Rating app

- ~ Finishing up rating app in VueJS

- ~ Word generator project in VueJS

- ~ Word generator methods

- ~ A nasty bug to find in VueJS

=> Components and third part libraries :

- ~ Adding third party libraries

- ~ Your first component

- ~ Watcher in VueJS

- ~ craft a winning login in tictacToe VueJS

- ~ Making our game functional in VueJS

- ~ Reload the game in Vue JS

=> Handling local storage in VueJS :

- ~ Building a local storage app in VueJS

- ~ Bring in Moment and UUID

- ~ A reuseable header in Vue JS

- ~ Input form component in VueJS

- ~ Movie card component in VueJS

- ~ Handling local storage in VueJS

- ~ Bring all components together and bug assignment VueJS

- ~ LifeCycle events in action VueJS

=> Handling API in VueJS :

- ~ Introducing the API in VueJS

- ~ Setting up API project in VueJS

- ~ Axios to fire request on web VueJS

- ~ Handling response with check Vuejs

- ~ Testing the response VueJS

- ~ Summing up user card Vue JS

=> Routing and state management :

- ~ A new router app in vuejs

- ~ Basics of routing middleware

- ~ router link in vue js

- ~ All about routing in Vuejs

- ~ Getting started with Github app in vuejs

- ~ Firebase config settings in vue

- ~ Creating lots of files for vue git project

- ~ Store in vuejs

- ~ Signup gitapp in vuejs

- ~ map getters in vuex

- ~ map actions in vuex

- ~ handling user card in vuex

- ~ preparing repo table in vuex

- ~ handling home component with store in vuex

- ~ Auth Guard in vue router

- ~ debugging session

Cyber Security Foundations

Topic Name : CYBER SECURITY

Sub-topic Name : CYBERSECURITY MASTERS

Course link : <https://ineuron.ai/course/Cyber-Security-Foundations>

Course Description :-

One of the most famous FAQ on google is How to get started with Ethical hacking? The perfect way to find the correct opportunity according to your potential is to take a deep dive into a course that has a great variety with a lot of practical practice.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Maintaining anonymity and exploring darknet
- => How to get started with bug bounty and core fundamentals building
- => Information gathering via OSINT
- => Intercepting web layers for bug hunting

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Saksham Choudhary :

~ Hello folks, I am AWS certified Cloud Architect Engineer. With having 5+ years of Experience in Teaching, I am currently providing cloud solutions for various products via my strong hands on DevOps Skills. I am a tech youtuber with 120k + subscriber and has taught 30,000 + students, Narcotics, Custom duty officers, Police officials and Corporate candidates.

Curriculum details :-

=> Day1 :

~ Maintaining anonymity and exploring darknet

=> Day2 :

~ How to get started with bug bounty and core fundamentals building

=> Day3 :

~ Information gathering via OSINT

=> Day4 :

~ Intercepting web layers for bug hunting

=> NaN :

~ NaN

~ NaN

~ NaN

Python advance with projects

Topic Name : DATA SCIENCE

Sub-topic Name : PYTHON PROJECT

Course link : <https://ineuron.ai/course/Python-advance-with-projects>

Course Description :-

Throughout this course, you will learn everything you need to know about Python, from the basics to advanced topics. Python applications like download manager will be developed using advanced principles to help you become a professional programmer capable of landing well-paying employment.

Course Features :-

- => Challenges
- => Quizzes
- => Assignments
- => Downloadable resources
- => Completion certificate

What you will learn :-

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Requirements :-

- => Basic knowledge of Python programming
- => A system with stable internet connection
- => Your dedication

Instructors :-

=> Sudhanshu Kumar :

~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

=> Introduction :

- ~ Programming language overview Preview
- ~ Installation (tools: sublime, vscode, pycharm, anaconda, atom, jupyter notebook, kite) Preview
- ~ Virtual environment
- ~ Why python

=> Python Basic :

- ~ Introduction of python and comparison with other programming language
- ~ Installation of anaconda distribution and other python ide
- ~ Python objects, number & Booleans, strings.
- ~ Container objects, mutability of objects
- ~ Operators - arithmetic, bitwise, comparison and assignment operators, operators precedence and associativity
- ~ Conditions (if else, if-elif-else), loops (while, for)
- ~ Break and continue statement and range function

=> String Objects :

- ~ Basic data structure in python
- ~ String object basics
- ~ String inbuilt methods
- ~ Splitting and joining strings
- ~ String format functions

=> List Object Basics :

- ~ List methods
- ~ List as stack and queues
- ~ List comprehensions

=> Tuples, Set, Dictionaries & Its Function :

- ~ Dictionary object methods
- ~ Dictionary comprehensions
- ~ Dictionary view objects
- ~ Functions basics, parameter passing, iterators.
- ~ Generator functions
- ~ Lambda functions
- ~ Map, reduce, filter functions.

Pro Aptitude - Operating Systems

Topic Name : APTITUDE

Sub-topic Name : APTITUDE

Course link : <https://ineuron.ai/course/Pro-Aptitude---Operating-Systems>

Course Description :-

This course is designed mostly for computer science subject OPERATING SYSTEM test takers.

Course Features :-

- => Quizzes
- => Course completion certificate

What you will learn :-

- => OS Theoretical Test
- => OS Practical Test
- => OS Aptitude Test

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to solve

Curriculum details :-

- => Operating System Test :
 - ~ Operating System Test 1
 - ~ Operating System Test 2
 - ~ Operating System Test 3
 - ~ Operating System Test 4

Data Structures and Algorithms using python

Topic Name : DATA STRUCTURE

Sub-topic Name : DSA WITH PYTHON

Course link : <https://ineuron.ai/course/Data-Structures-and-Algorithms-using-python>

Course Description :-

The Data Structure and Algorithm program focused on learning algorithmic strategies for addressing a myriad of challenges while having complete control of memory and time. Develop a thorough understanding of how data structures work and how to create efficient algorithms.

Course Features :-

- => Algorithm Analysis
- => Recurrence Relation
- => Array Data Structure
- => Divide and Conquer
- => Tree Data Structure
- => Heap Data Structure
- => Linked List
- => Skip List
- => Dynamic Programming
- => Quizzes
- => Downloadable resources
- => Completion certificate

What you will learn :-

- => Acquire knowledge of various popular algorithms like hash-table, Binary Search, Merge Sort and more
- => Dynamic programming
- => Develop some analytical skills and use them efficiently in Data Structure Algorithms
- => Acquire knowledge on various Sorting Algorithms
- => Implementation of Data Structures by using Python

Requirements :-

- => A system with Internet Connection
- => Basic knowledge of Python

Instructors :-

- => Priya Bhatia :
 - ~ Expertise in data structure competitive programming and solving analytical problems and implementing data structure algorithm in multiple programming language. I have done my M.Tech in Artificial Intelligence at IIT Hyderabad and have an experience of implementation in multiple projects.

Curriculum details :-

- => INTRODUCTION :
 - ~ Course Overview Preview
- => ANALYSIS IN ALGORITHMS :
 - ~ Introduction to Algorithms Preview
 - ~ Analyzing Algorithms
 - ~ Asymptotic Notations - Big O, Theta and Omega Notations
- => RECURRENCE RELATION :
 - ~ Introduction to Recurrence Relation Solving Preview
 - ~ Substitution Method - Problem 1
 - ~ Substitution Method - Problem 2
 - ~ Substitution Method - Problem 3
 - ~ Substitution Method - Problem 4
 - ~ Recursive Tree Method - Problem 1
 - ~ Recursive Tree Method - Problem 2
 - ~ Recursive Tree Method - Problem 3
 - ~ Master's Theorem - Case 1
 - ~ Master's Theorem - Case 2
 - ~ Master's Theorem - Case 3
- => ARRAY DATA STRUCTURE :
 - ~ Introduction to Arrays
 - ~ One Dimensional Array - How to find the address of an Element
 - ~ Two Dimensional Array - Row major order and column major order

- ~ Searching Algorithm - Linear search in an Array
- ~ Comparison Sort in an Array - Selection sort
- ~ Comparison Sort in an Array - Bubble sort
- ~ Comparison Sort in an Array - Insertion sort
- ~ Non-Comparison Sort in an Array - Count sort
- ~ Non-Comparison Sort in an Array - Radix sort
- ~ Non-Comparison Sort in an Array - Bucket sort
- ~ Interview-Based Problem Statement - Missing Number in an array
- ~ Solution Discussed - Missing Number in an array
- ~ Interview-Based Problem Statement and Brute Force Approach - Divide two Integer without division operator
- ~ Solution Discussed - Optimised Approach with Complexity Analysis

=> DIVIDE AND CONQUER :

- ~ Introduction to Divide and Conquer

=> DISCUSSIONS OF APPLICATIONS AND CONQUER :

- ~ Binary Search in an Array
- ~ Coding Implementation of Binary Search
- ~ Finding of Power of an Element
- ~ Coding Implementation of Power Of an Element
- ~ Inplace and Outplace Sorting Algorithm
- ~ Merge Sort Recursive Tree
- ~ Merge Sort Recursive Tree Continue
- ~ Max and Min Comparison in Merge Procedure
- ~ Code Implementation of Merge Sort
- ~ Finding of Maxima and Minima
- ~ Strassen's Matrix Multiplication
- ~ Finding Of Number of Inversions

=> QUICKSORT :

- ~ Introduction To QuickSort
- ~ Partition Algorithm in QuickSort
- ~ Psuedo Implementation of QuickSort
- ~ Recurrence Relation Analysis with time complexity finding
- ~ Coding Implementation of QuickSort Algorithm
- ~ Problem 1 Based on QuickSort Algorithm
- ~ Solution 1 Based on QuickSort Algorithm
- ~ Problem 2 Based on QuickSort Algorithm
- ~ Solution 2 Based on QuickSort Algorithm
- ~ Randomized QuickSort Algorithm

=> SELECTION PROCEDURE :

- ~ Introduction To Selection Procedure and Pseudocode
- ~ Recurrence Relation Analysis with time complexity finding Of Selection Procedure
- ~ Code Implementation of Selection Procedure

=> LINKED LIST :

- ~ Introduction to Linked List
- ~ Insertion of Node(Beginning and End Position) in Linked List
- ~ Insertion of Node(Any Position) in Linked List
- ~ Deletion of Node in Linked List
- ~ Searching of Node from Linked List
- ~ Reversal of Nodes in Linked List
- ~ Floyd's Cycle Detection Algorithm
- ~ Doubly Linked List
- ~ Circular Linked List

=> SKIP LIST(ADVANCE DSA) :

- ~ Introduction to Skip List
- ~ Build-in Skip List
- ~ Search in Skip List
- ~ Insertion in Skip List
- ~ Deletion in Skip List
- ~ Complexity Analysis

=> STACK AND QUEUE DATA STRUCTURE :

- ~ Introduction to Stack and Queue Data Structure
- ~ Implementation of Stack and Queue using Array in Python
- ~ Implementation of Stack and Queue using Collection.deque in Python
- ~ Interview-Based Coding question

=> HASHING DATA STRUCTURE :

- ~ Introduction to Hashing Data Structure
- ~ Hash Function and its types

=> COLLISION RESOLUTION TECHNIQUES :

- ~ Chaining

=> OPEN ADDRESSING :

- ~ Linear Probing
- ~ Quadratic Probing
- ~ Double Hashing
- ~ Perfect Hashing
- ~ Consistent Hashing
- ~ Interview-Based Coding Question - Two Sum Problem
- ~ Bloom Filters

=> TREE DATA STRUCTURE :

- ~ Introduction to Binary Tree
- ~ Complete Binary Tree and Almost Complete Binary Tree
- ~ Full Binary Tree and Representation using Array and Linked List
- ~ Interview-Based Coding Question - Symmetric Tree Or Not

=> BINARY SEARCH TREE :

- ~ Introduction
- ~ Insertion
- ~ Inorder Traversal in BST Gives Sorted Array Concept
- ~ Searching
- ~ Coding Implementation of Searching Operation
- ~ Deletion
- ~ Deletion Implementation
- ~ Standard Formula to count the number of possible BSTs given number of nodes
- ~ Interview-Based Coding question - Catalan Number Concept to find number of BST

=> HEIGHT BALANCED TREE: AVL TREE :

- ~ Introduction to AVL Tree
- ~ Insertion
- ~ Insertion Demonstration and Searching in AVL Tree
- ~ Deletion

=> HEIGHT BALANCED TREE: RED BLACK TREE :

- ~ Introduction: Why Red Black Tree?
- ~ Properties Of Red Black Tree
- ~ Insertion Rules in Red Black Tree
- ~ Example Demonstration 1 of Insertion in Red Black Tree
- ~ Example Demonstration 2 of Insertion in Red Black Tree Part 1
- ~ Example Demonstration 2 of Insertion in Red Black Tree Part 2
- ~ Example Demonstration 2 of Insertion in Red Black Tree Part 3
- ~ Searching
- ~ Deletion Rules in Red Black Tree
- ~ Example Demonstration of Deletion in Red Black Tree

=> B AND B+ TREE: USAGE IN DATABASES :

- ~ Insertion
- ~ Searching
- ~ Deletion

=> GRAPH TRAVERSAL ALGORITHMS :

- ~ Introduction to Graph Traversal Algorithms
- ~ Introduction to Depth First Search Algorithm
- ~ Depth First Search with Example illustration
- ~ DFS Pseudocode and illustration using Example
- ~ DFS Coding Implementation and Complexity Analysis
- ~ Breadth-First Search with Example illustration
- ~ Level Order Traversal Using BFS
- ~ BFS Pseudocode and coding implementation with complexity analysis
- ~ Interview-Based Coding Question - Binary Tree Zigzag Level Order Traversal

=> HEAP DATA STRUCTURE :

- ~ Introduction to Heap Data Structure
- ~ Maxheap and Minheap Overview
- ~ Insertion in Minheap
- ~ Example Demonstration of Insertion in Minheap
- ~ Deletion in Minheap
- ~ Creation in Minheap Part1
- ~ Creation in Minheap Part2
- ~ Mathematical Derivation to analyse the complexity of creation in minheap
- ~ Interview-Based Coding Question - Maximum Product of three numbers in an array
- ~ Interview-Based Coding Question - Finding of K closest Points from an origin
- ~ HeapSort Algorithm with Time complexity analysis
- ~ Pseudocode of HeapSort and Why HeapSort is not stable algorithm?

=> TREE TRAVERSAL :

- ~ Introduction to Tree Traversal
- ~ Inorder Traversal
- ~ Preorder Traversal
- ~ Postorder Traversal
- ~ Questions Based on Above Traversal Algorithms

=> GREEDY ALGORITHMS :

- ~ Introduction to Greedy Algorithms

=> DISCUSSION AND APPLICATIONS OF GREEDY :

- ~ Fractional Knapsack Problem
- ~ Pseudocode Of Fractional Knapsack Problem
- ~ Implementation Of Fractional Knapsack Problem

=> MINIMUM SPANNING TREE :

- ~ Introduction to Basics Of Graphs
- ~ Null Graph and Complete Graph
- ~ Introduction To Spanning Tree Algorithm
- ~ Concept Of Minimum Spanning Tree
- ~ Kruskal Algorithm
- ~ Time Complexity Of Kruskal Algorithm
- ~ Prim's Algorithm
- ~ Decrease Key Operation in MinHeap
- ~ Time Complexity Of Prim's Algorithm

=> SINGLE SOURCE SHORTEST PATH :

- ~ Bellman-Ford Algorithm

=> DYNAMIC PROGRAMMING :

- ~ Introduction to Dynamic Programming
- ~ Overlapping Subproblem in Dynamic Programming

- ~ *Tabulation in Dynamic Programming*
- ~ *Memoization in Dynamic Programming*

=> DISCUSSION AND APPLICATIONS OF DYNAMIC PROGRAMMING :

- ~ *Fibonacci Series*
- ~ *Longest Common Subsequence*
- ~ *0/1 Knapsack Problem*
- ~ *Sum of Subset*

=> ALL PAIR SHORTEST PATH :

- ~ *Floyd Warshall Algorithm and Complexity Analysis*

=> STRING MATCHING ALGORITHMS :

- ~ *Introduction*
- ~ *Naive String Matching Algorithms*
- ~ *Rabin Karp Algorithm*
- ~ *KnuthMorrisPratt (KMP) Pattern Matching*

=> NP-HARD AND NP-COMPLETE PROBLEM :

- ~ *NP-Hard*
- ~ *NP-Complete Problem*

Industry Ready Data Science Projects Tech Neuron

Topic Name : DATA SCIENCE

Sub-topic Name : MACHINE LEARNING PROJECT

Course link : <https://ineuron.ai/course/Industry-Ready-Data-Science-Projects-Tech-Neuron>

Course Description :-

Ready to use end-to-end data science projects for real-world business use cases. We will be discussing projects from very scratch such as understanding problem statements, capturing requirements, and various aspects of project design using different documentation such as High-Level Design, Low-Level Design, and Architecture Design. Practical use of MLOPS practices using tools such as MLFLOW, Wandb. Pipeline implementation for training, retraining, and inferencing. Designing dashboard to present important KPIs to monitor system and model performance and generate alert to notify the appropriate parties to address serious problems if it is about to occur.

Course Features :-

- => Online Instructor-led learning
- => Doubt Clearing
- => Proper Roadmap for building AI projects
- => Lifetime Dashboard access
- => Recording of Live Class
- => Material
- => Interview Questions
- => Resume Building
- => Career Guidance
- => Quiz in every module - Based on Real Time Questions
- => Certificate
- => Industry Level Projects and Case studies
- => Capstone Projects

What you will learn :-

- => System Architecture
- => High Level Design
- => Component Selection
- => Low Level Design
- => Core utility design
- => Deployment Architecture
- => Multistage pipeline for CI/CD
- => ML Pipeline Understanding
- => Training Pipeline Implementation
- => Inference Pipeline Implementation
- => Retraining Pipeline Implementation
- => Deployment of ML Pipeline on Cloud
- => Monitoring of System and Model Performance

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication
- => Knowledge of Python
- => Knowledge of Machine Learning

Instructors :-

=> Avnish Yadav :

~ 3+ years of experience in various domains such as data scientist, data analyst, database developer, and .net developer. Implemented various sophisticated business requirements, performed an analysis of various data to capture insights and hidden patterns. Fine and tuned various regression and classification-based algorithms for prediction. Implemented various ETL pipelines to fulfil the business requirement. Automated various machine learning pipelines such as data loading, data cleaning, data validation, model selection, model tuning, and model monitoring pipeline. Implemented

machine learning pipeline in azure machine learning studio. I have a keen interest to solve complicated machine learning problems to fulfil business requirements.

=> Ketan Gangal :

~ I have worked in data science for more than two years, and I have a track record of successfully implementing data science pipelines in production with practical expertise using ML-Ops, deep learning & machine learning. I also love sequence processing because it is deeply inspired by humans as our feeling, thoughts, emotions, sensations, language are sequential in nature if we can enable machine to understand sequence of information and act accordingly we can make significant progress towards true artificial intelligence.

=> krish naik :

~ Having 10+ years of experience in Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

=> Sudhanshu Kumar :

~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

=> Project - Sensor Fault Detection :

- ~ Project Introduction
- ~ Project Business Use case
- ~ System Architecture
- ~ High Level Design
- ~ Component Selection
- ~ Low Level Design
- ~ Core utility design
- ~ Deployment Architecture
- ~ Multistage pipeline for CI/CD
- ~ Technology Stack
- ~ Python, Pandas, Sklearn, Mlflow, Cloud, Prometheus and Grafana, Docker, RDBMS, Cloud Storage, Flask, Git, GitHub
- ~ ML Pipeline Understanding
- ~ Type of ML Pipeline
- ~ Training Pipeline
- ~ Inferencing Pipeline
- ~ Retraining Pipeline
- ~ Training Pipeline Implementation
- ~ Introduction to Training Pipeline
- ~ Data Ingestion From Data Source
- ~ Data Validation
- ~ EDA, Data Preprocessing, Feature Engineering Model Selection
- ~ Customize Model Training
- ~ Model Training, Selection and Hyperparameter Tuning
- ~ Model Analysis and Evaluation
- ~ Model Push/ Export
- ~ Inference Pipeline Implementation
- ~ Introduction to Inference Pipeline
- ~ Understanding of the use of Artifact Generated by Training Pipeline
- ~ Data Validation
- ~ Data Preprocessing and Feature Engineering
- ~ Prediction using preprocessed data
- ~ Retraining Pipeline Implementation
- ~ Introduction to Retraining Pipeline
- ~ Model Analysis and Performance Monitoring of Prediction Pipeline
- ~ Creating Trigger to Initiate Model Retraining
- ~ Deployment of ML Pipeline on Cloud
- ~ Schedule and Orchestrate Training Pipeline
- ~ Deployment of Inference Pipeline as an API
- ~ Deployment of Retraining Pipeline
- ~ Monitoring of System and Model Performance
- ~ Importance of Monitoring
- ~ Visualization of KPI and Other Indicator
- ~ System and Model Performance Visualization
- ~ Implementation of Alert and Notification to prevent Failure
- ~ Project Conclusion

=> Project - Financial Product Complaint :

- ~ Project Introduction
- ~ Project Business Use case
- ~ System Architecture
- ~ High Level Design
- ~ Component Selection
- ~ Low Level Design
- ~ Core utility design
- ~ Deployment Architecture
- ~ Multistage pipeline for CI/CD
- ~ Technology Stack
- ~ Python, Pytorch, Cloud, Prometheus and Grafana, Docker, RDBMS, Cloud Storage, Flask, Git, GitHub
- ~ ML Pipeline Understanding
- ~ Type of ML Pipeline
- ~ Training Pipeline
- ~ Inferencing Pipeline
- ~ Retraining Pipeline
- ~ Training Pipeline Implementation
- ~ Introduction to Training Pipeline
- ~ Data Ingestion From Data Source
- ~ Data Validation
- ~ EDA, Data Preprocessing, Feature Engineering Model Selection
- ~ Model Training, Selection and Hyperparameter Tuning
- ~ Model Analysis and Evaluation

- ~ Model Push/ Export
- ~ Inference Pipeline Implementation
- ~ Introduction to Inference Pipeline
- ~ Understanding of the use of Artifact Generated by Training Pipeline
- ~ Data Validation
- ~ Data Preprocessing and Feature Engineering
- ~ Prediction using preprocessed data
- ~ Retraining Pipeline Implementation
- ~ Introduction to Retraining Pipeline
- ~ Model Analysis and Performance Monitoring of Prediction Pipeline
- ~ Creating Trigger to Initiate Model Retraining
- ~ Deployment of ML Pipeline on Cloud
- ~ Schedule and Orchestrate Training Pipeline
- ~ Deployment of Inference Pipeline as an API on Elastic Container Serving
- ~ Deployment of Retraining Pipeline
- ~ Monitoring of System and Model Performance
- ~ Importance of Monitoring
- ~ Visualization of KPI and Other Indicator
- ~ System and Model Performance Visualization
- ~ Implementation of Alert and Notification to prevent Failure
- ~ Project Conclusion

=> Project - Face Authenticator :

- ~ Project Introduction
- ~ Project Business Use case
- ~ System Architecture
- ~ High Level Design
- ~ Component Selection
- ~ Low Level Design
- ~ Core utility design
- ~ Deployment Architecture
- ~ Multistage pipeline for CI/CD
- ~ Technology Stack
- ~ Python, MongoDB, Deepface, Flask, Docker, EC2 Instance, Git, Github, SQL
- ~ Face Authenticator Pipeline
- ~ Understanding Face Authenticator mechanism
- ~ Face Registration Pipeline
- ~ Face Identification Pipeline
- ~ Face Registration Pipeline
- ~ Capturing Images of a Person
- ~ Generating Embedding of Facial Image
- ~ Save Embedding in Database
- ~ Face Identification Pipeline
- ~ Detecting face of a Person at login portal
- ~ Generate embedding of captured face
- ~ Search Generated Embedding in DB using similarity metrics Triplet Loss
- ~ Monitoring of System and Model Performance
- ~ Importance of Monitoring
- ~ Visualization of KPI and Other Indicator
- ~ System and Model Performance Visualization
- ~ Implementation of Alert and Notification to prevent Failure
- ~ Project Conclusion

=> Project - Embedding based search engine :

- ~ Project Introduction
- ~ Project Business Use case
- ~ System Architecture
- ~ High Level Design
- ~ Component Selection
- ~ Low Level Design
- ~ Core utility design
- ~ Deployment Architecture
- ~ Multistage pipeline for CI/CD
- ~ Technology Stack
- ~ Python, Pytorch, Hugging Face, Transformer, Prometheus and Grafana, Docker, RDBMS, Cloud Storage, Flask, Git, GitHub
- ~ ML Pipeline Understanding
- ~ Type of ML Pipeline
- ~ Training Pipeline
- ~ Inferencing Pipeline
- ~ Retraining Pipeline
- ~ Training Pipeline Implementation
- ~ Introduction to Training Pipeline
- ~ Data Ingestion From Data Source
- ~ Data Validation
- ~ EDA, Data Preprocessing, Feature Engineering Model Selection
- ~ Model Training, Selection and Hyperparameter Tuning
- ~ Model Analysis and Evaluation
- ~ Model Push/ Export
- ~ Inference Pipeline Implementation
- ~ Introduction to Inference Pipeline
- ~ Understanding of the use of Artifact Generated by Training Pipeline
- ~ Data Validation
- ~ Data Preprocessing and Feature Engineering
- ~ Prediction using preprocessed data
- ~ Retraining Pipeline Implementation
- ~ Introduction to Retraining Pipeline
- ~ Model Analysis and Performance Monitoring of Prediction Pipeline
- ~ Creating Trigger to Initiate Model Retraining
- ~ Deployment of ML Pipeline on Cloud

- ~ *Schedule and Orchestrate Training Pipeline*
- ~ *Deployment of Inference Pipeline as an API*
- ~ *Deployment of Retraining Pipeline*
- ~ *Monitoring of System and Model Performance*
- ~ *Importance of Monitoring*
- ~ *Visualization of KPI and Other Indicator*
- ~ *System and Model Performance Visualization*
- ~ *Implementation of Alert and Notification to prevent Failure*
- ~ *Project Conclusion*

Class 7th Math

Topic Name : K12

Sub-topic Name : CLASS7

Course link : <https://ineuron.ai/course/Class-7th-Math>

Course Description :-

This course is useful for Grade 7 students. In this course, entire NCERT will be covered. Various questions from NCERT, NCERT exemplar and previous year will also be discussed. Dedicated doubt clearing sessions will also be conducted for helping the students regularly throughout their learning journey.

Course Features :-

- => Self Paced Videos
- => Completion Certificate

What you will learn :-

- => Algebra
- => Geometry
- => Statistics
- => Numbers
- => Mensuration

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

- => Jayant Topnani :
 - ~ Having 2+ years teaching experience and have mentored students online & offline across all boards.

Curriculum details :-

=> Integers :

- ~ Lecture 1 : Introduction Preview
- ~ Lecture 3 : NCERT Solutions Ex1.1 Question 2,3,4,5
- ~ Lecture 4 : Part 1 NCERT Solutions Ex1.1 Question 5,6,7,8,9,10
- ~ Lecture 5 : Integer Properties
- ~ Lecture 6 : NCERT Solutions Ex 1.2
- ~ Lecture 7 : Multiplication Property
- ~ Lecture 8 : NCERT Solutions Ex1.3 Question 1,2,3
- ~ Lecture 9 : NCERT Solutions Ex1.3 Question 3,4,5,6
- ~ Lecture 10 : NCERT Solutions Ex1.3 Question 7,8,9
- ~ Lecture 12 : NCERT Solutions Ex1.4
- ~ Lecture 13 : NCERT Solutions Ex1.4 Question 5,6,7

=> Fractions & Decimals :

- ~ Lecture 1 : Introduction NCERT Solutions Ex2.1 Question 1 & 2 Preview
- ~ Lecture 2 : NCERT Solutions Ex2.1 Question 3,4,5,6,7,8 Preview
- ~ Lecture 3 : Introduction Multiplication of Fractions
- ~ Lecture 4 : NCERT Solutions Ex2.2
- ~ Lecture 5 : Introduction NCERT Solutions Ex2.3
- ~ Lecture 6 : NCERT Solutions Ex2.3
- ~ Lecture 7 : Introduction NCERT Solutions Ex2.5
- ~ Lecture 8 : NCERT Solutions Ex2.4
- ~ Lecture 10 : NCERT Solutions Ex2.5 Question 1,2
- ~ Lecture 11 : NCERT Solutions Ex2.5 Question 4,5,6,7,8,9
- ~ Lecture 13 : NCERT Solutions Ex2.6
- ~ Lecture 15 : NCERT Solutions Ex2.7

=> Data Handling :

- ~ Lecture 1 : Data Handling Introduction
- ~ Lecture 2 : NCERT Solutions Ex3.1 Question 1,2,3,4,5,6,7,8,9
- ~ Lecture 3 : NCERT Solutions Ex3.2
- ~ Lecture 4 : NCERT Solutions Ex3.3 Question 1,2
- ~ Lecture 6 : NCERT Solutions Ex3.3 Question 4
- ~ Lecture 9 : NCERT Solutions Ex3.4

=> Simple Equations :

- ~ Lecture 1 : Introduction
- ~ Lecture 2 : NCERT Solutions Ex4.1
- ~ Lecture 3 : Introduction Solving Equations
- ~ Lecture 4 : NCERT Solutions Ex 4.2

- ~ Lecture 5 : NCERT Solutions Ex4.3
- ~ Lecture 6 : Introduction NCERT Solutions Ex4.4
- ~ Lecture 7 : NCERT Solutions Ex 4.4

=> Lines and Angles :

- ~ Lecture 1 : Some Important Definitions : Line segment, Line, Angles, Acute Angle, Obtuse Angle, Reflex Angle, Straight Angle, Complementary Angle, Supplementary Angle
- ~ Lecture 2 : Adjacent Angle, Linear Pair, Vertically Opposite Angle
- ~ Lecture 3 : Ex 5.1 Q 1 to 9
- ~ Lecture 4 : Ex 5.1 Q 9 to 14
- ~ Lecture 5 : Intersecting Lines, Transversal and Angles made by a Transversal, Transversal of Parallel Lines.
- ~ Lecture 6 : Checking for Parallel Lines, Ex 5.2

=> The Triangle and its Properties :

- ~ Lecture 1 : Introduction
- ~ Lecture 2 : Elements of Triangle, Vertex, Sides and Angles
- ~ Lecture 3 : Classification of Triangles on the basis of Sides and on the basis of Angles, Angle Sum Property of a Triangle
- ~ Lecture 4 : Medians and Altitudes of a Triangle, Ex 6.1
- ~ Lecture 5 : Exterior Angles of a Triangle and its Properties, Ex 6.2
- ~ Lecture 6 : Ex 6.3
- ~ Lecture 7 : Two Special Triangles, Equilateral and Isosceles
- ~ Lecture 8 : Sum of Lengths of Two Sides of a Triangle
- ~ Lecture 9 : Ex 6.4, Q 1 to 5
- ~ Lecture 10 : Right-Angled Triangles and Pythagoras Property
- ~ Lecture 11 : EXERCISE 6.5 Q 3 to 8

=> Congruence of Triangles :

- ~ Lecture 1 : Congruent Figures, Congruence of Triangles
- ~ Lecture 2 : Ex 7.1 Q 1 to 4
- ~ Lecture 3 : Criteria for Congruence of Triangles, SSS Criteria
- ~ Lecture 4 : SAS, ASA Congruence Condition
- ~ Lecture 5 : Congruence Among Right Angle Triangle (RHS Congruence Condition)
- ~ Lecture 6 : Ex 7.2 Q 1 to 5
- ~ Lecture 7 : Ex 7.2 Q 5 to 6

=> Comparing Quantities :

- ~ Lecture 1 : Introduction, Understanding Ratio, Equivalent Ratio
- ~ Lecture 2 : Unitary Method, Ex 8.1, Proportion
- ~ Lecture 3 : Percentage, another way of Comparing Quantities
- ~ Lecture 4 : Converting Decimal to Percentage
- ~ Lecture 5 : NCERT Ex 8.2 Q 6 to 8
- ~ Lecture 6 : Profit and Loss
- ~ Lecture 7 : Question Practice on Profit and Loss
- ~ Lecture 8 : Charge Given on Borrowed money / Simple Interest
- ~ Lecture 9 : EX 8.3 Q 1 to 7
- ~ Lecture 10 : EX 8.3 Q 8 to 11

=> Rational Numbers :

- ~ Lecture 1 : Introduction, Positive and Negative Rational number, Three Important Properties of Rational Numbers, Equivalent Number
- ~ Lecture 2 : Representing Rational Number on Number Lines
- ~ Lecture 3 : Rational Number in Standard Form
- ~ Lecture 4 : Comparison of Rational Numbers, Rational Numbers between two Rational Numbers
- ~ Lecture 5 : EX 9.1 Q 1 to 5
- ~ Lecture 6 : EX 9.1 Q 6 to 10

=> Practical Geometry :

- ~ Lecture 1 : Construct line parallel to given line & triangle if 3 sides are given
- ~ Lecture 2 : Construction triangle SAS, ASA & RHS

=> Perimeter and Area :

- ~ Lecture1_Introduction_&_Course_Content
- ~ Lecture2_Square_&_Rectangle
- ~ Lecture3_NCERT_EX_11.1_PROBLEM_DISCUSSION
- ~ Lecture4_Triangle_As_Part_Of_Rectangle
- ~ Lecture5_Area_Of_Parallelogram
- ~ Lecture6_Area_Of_Triangle
- ~ Lecture7_NCERT_EX11.2_PROBLEM_DISCUSSION
- ~ Lecture8_Circle_Circumference_&_Area_Part1
- ~ Lecture8_Circumference_&_Area_Circle_Part2
- ~ Lecture8_Circumference_&_Area_Circle_Part3
- ~ Lecture9_NCERT_EX11.3_PROBLEM_DISCUSSION
- ~ Lecture10_CONVERSION_OF_UNITS
- ~ Lecture11_Applications_Perimeter_&_Area
- ~ Lecture12_NCERT_EX11.3_PROBLEM_DISCUSSIONS

=> Algebraic Expressions :

- ~ Lecture1_Introduction_&_Topics
- ~ Lecture2_Algebraic_Terminologies
- ~ Lecture3_Like_Vs_Unlike_Terms
- ~ Lecture4_NCERT_EX_12.1_PROBLEM_DISCUSSION
- ~ Lecture5_Addition_&_Subtraction_Algebraic_Expressions
- ~ Lecture6_NCERT_EX_12.2_PROBLEM_DISCUSSION
- ~ Lecture7_Finding_Value_Of_Algebraic_Expression
- ~ Lecture8_NCERT_EX_12.3_PROBLEM_DISCUSSION
- ~ Lecture9_Number_Pattern_Rules
- ~ Lecture10_NCERT_EX12.4_PROBLEM_DISCUSSIONS
- ~ Lecture11_Chapter_Summary_The_End

=> Exponents and Powers :

- ~ Lecture1_Course_Content_&_Introduction

- ~ Lecture2_Exponents_&_Powers
- ~ Lecture3_NCERT_EX_13.1_PROBLEM_DISCUSSIONS
- ~ LECTURE4_LAWS_OF_EXPONENTS
- ~ LECTURE5_NCERT_13.2_PROBLEM_DISCUSSION
- ~ LECTURE6_STANDARD_FORM_NOTATION
- ~ LECTURE7_NCERT_EX13.3_PROBLEM_DISCUSSION

=> Symmetry :

- ~ Lecture1_Introduction_To_Symmetry
- ~ Lecture2_Line_Of_Symmetry_For_Regular_Polygon
- ~ Lecture3_NCERT_EX_14.1_PROBLEM_DISCUSSION
- ~ Lecture4_All_about_Rotational_Symmetry
- ~ Lecture5_NCERT_EX_14.2_PROBLEM_DISCUSSION
- ~ Lecture6_Line_&_Rotational_Symmetry
- ~ Lecture7_NCERT_EX_14.3_PROBLEM_DISCUSSION

=> Visualising Solid Shapes :

- ~ Lecture1_Introduction_&_Course_Walkthrough
- ~ Lecture2_All_About_Nets
- ~ Lecture3_NCERT_EX15.1_PROBLEMS_DISCUSSION
- ~ Lecture4_Oblique_Vs_Isometric_Sketches
- ~ Lecture5_NCERT_EX15.2_PROBLEM_DISCUSSION
- ~ Lecture6_Visualizing_Solid_Objects
- ~ Lecture7_Viewing_Different_Sections_Of_Solid

House Price Prediction

Topic Name : DATA SCIENCE

Sub-topic Name : MACHINE LEARNING PROJECT

Course link : <https://ineuron.ai/course/House-Price-Prediction>

Course Description :-

The selling price of a property in a specific area can be determined with the use of house price predictions, and consumers can choose the ideal moment to purchase a home. In this project, "House Price Prediction Using Machine Learning," our goal is to develop a machine learning model to forecast house prices in the State of California using data from the census.

Course Features :-

- => Do Everything In Industry Grade Lab
- => Learn As Per Your Timeline
- => Hands-On Industry Real-Time Projects.
- => Self Paced Learning
- => Dashboard Access

What you will learn :-

- => Real Time Projects
- => House Price Prediction
- => Preparing Dataset And Basic Analysis
- => Preparing Dataset For Model Training
- => Training the Model
- => Performance Metrics
- => Creating A Flask Web Application
- => Deployment

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

=> krish naik :

~ Having 10+ years of experience in Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

- => Welcome to the Course :
 - ~ Course Overview
 - ~ Dashboard Introduction
- => Project :- House Price Prediction :
 - ~ Understanding the dataset
 - ~ Preparing Dataset And Basic Analysis
 - ~ Preparing Dataset For Model Training
 - ~ Training the Model
 - ~ Performance Metrics
 - ~ Prediction Of New Data
 - ~ Pickling the model File
 - ~ Setting up Github And VS Code
 - ~ Tools And Softwares Required
 - ~ Creating A New Environment
 - ~ Setting up Git
 - ~ Creating A Flask Web Application
 - ~ Running And Testing Our Application
 - ~ Prediction From Front End Application
 - ~ Procfile For Heroku Deployment
 - ~ Deploying App To Heroku
 - ~ Deploying the App Using Dockers

Class 8th Math

Topic Name : K12

Sub-topic Name : CLASS8

Course link : <https://ineuron.ai/course/Class-8th-Math>

Course Description :-

This course is useful for Grade 8 students. In this course, entire NCERT will be covered. Various questions from NCERT, NCERT exemplar and previous year will also be discussed. Dedicated doubt clearing sessions will also be conducted for helping the students regularly throughout their learning journey.

Course Features :-

- => Self Paced Videos
- => Completion Certificate

What you will learn :-

- => Algebra
- => Statistics
- => Geometry
- => Numbers
- => Mensuration

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

- => Jayant Topnani :
 - ~ Having 2+ years teaching experience and have mentored students online & offline across all boards.

Curriculum details :-

=> Rational Numbers :

- ~ Lecture 1 : Closure Property Preview
- ~ Lecture 2 : Commutative Property Preview
- ~ Lecture 3 : Associative Property
- ~ Lecture 4 : Natural Number Properties
- ~ Lecture 5
- ~ Lecture 6 : NCERT Solution Ex1.1 Question 1
- ~ Lecture 7 : Inserting Rational Numbers Between Two Rational Numbers
- ~ Lecture 8 : NCERT Solution Ex1.2 Question 1-5
- ~ Lecture 9 : NCERT Solution Ex1.2 Question 6,7

=> Linear Equations in One Variable :

- ~ Lecture 1 : NCERT Solution Ex2.1
- ~ Lecture 3 : NCERT Solution Ex2.2 Question 1-4
- ~ Lecture 4 : NCERT Solution Ex2.2 Question 5-8
- ~ Lecture 5 : Part 1 NCERT Solution Ex2.2 Question 9-16
- ~ Lecture 7 : NCERT Solution Ex2.3
- ~ Lecture 9 : NCERT Solution Ex2.4
- ~ Lecture 10 : NCERT Solution Ex2.4 Question 6-9
- ~ Lecture 12 : NCERT Solution Ex2.5
- ~ Lecture 13 : NCERT Solution Ex 2.5 Question 7-10
- ~ Lecture 15 : NCERT Solution Ex 2.6

=> Understanding Quadrilaterals :

- ~ Lecture 1 : Introduction Preview
- ~ Lecture 2 : Part 1 Preview
- ~ Lecture 3 : NCERT Solutions Ex 3.1
- ~ Lecture 4 : NCERT Solutions Ex3.3q6p3,4
- ~ Lecture 6 : Theory
- ~ Lecture 7 : NCERT Solutions Ex 3.2
- ~ Lecture 8 : Types of Quadrilaterals
- ~ Lecture 9 : NCERT Solutions Ex3.3 Question 1,2,3,4
- ~ Lecture 10 : NCERT Solutions Ex3.3 Question 5,6,7,8
- ~ Lecture 11 : NCERT Solutions Ex3.3 Question 9,10,11,12
- ~ Lecture 12 : NCERT Solutions Ex 3.4

=> Practical Geometry :

- ~ Lecture 1 : 4 sides & Dia known
- ~ Lecture 2 : 2 Dia & 3 sides known quad const
- ~ Lecture 3 : 2 adjacent sides & 3 angles known

- ~ Lecture 4 : 3 sides & 2 included angles known
- ~ Lecture 5 : Square & Rhombus Const

=> Data Handling :

- ~ Lecture 1 : Introduction
- ~ Lecture 2 : NCERT Solutions Ex5.1 Question 1
- ~ Lecture 3 : NCERT Solutions Ex5.1
- ~ Lecture 4 : Ex5.1 Question 3,4
- ~ Lecture 5 : Circle Introduction
- ~ Lecture 6 : NCERT Solutions Ex5.2 Question 1,2,3
- ~ Lecture 7 : NCERT Solutions Ex5.2 Question 4,5
- ~ Lecture 8 : Probability Introduction
- ~ Lecture 9 NCERT Solutions Ex5.3

=> Squares and Square Roots :

- ~ Lecture 1 : Perfect Square Numbers
- ~ Lecture 2 : Properties of Perfect Square
- ~ Lecture 3 : Property of Perfect Square Continued and Pythagoren Triplet
- ~ Lecture 4 : Numbers between Square Numbers , Some Patterns in Square Numbers
- ~ Lecture 5, Exericse 6.1
- ~ Lecture 6, Finding the Square of a Number, Ex 6.2
- ~ Lecture 7 : Square Root, Finding Square Root through Prime factorisation
- ~ Lecture 8 : Exercise 6.3 Q1 to 5
- ~ Lecture 9 : Exercise 6.3 Q6 to 10
- ~ Lecture 10 : Square of a Perfect Square Number by Long Division Method
- ~ Lecture 11 : Ex 6.4 Q 1 to 7
- ~ Lecture 12 : Ex 6.4 Q 8 - 9

=> Cubes and Cube Roots :

- ~ Lecture 1 : Understanding how to find cube of a number, how to check weather a number is a perfect cube or not
- ~ Lecture 2 : Ex 7.1 Q 1 to 4
- ~ Lecture 3 : Cube root , Method of finding Cube root of a number
- ~ Lecture 4 : Estimating Cube root of a number without factorisation

=> Comparing Quantities :

- ~ Lecture 1 : Concept of ratio and percentage
- ~ Lecture 2 : Ex 8.1 Q 1 to 6
- ~ Lecture 3 : Finding Increase or Decrease Percenet, Finding Discounts
- ~ Lecture 4 : Profit and Loss , Sales Tax/ Value Added Tax/ Goods and Services Tax
- ~ Lecture 5 : Exericse 8.2 Q 1 to 5
- ~ Lecture 6 : Exercise 8.2 Q 6 to 8
- ~ Lecture 7 : Compound Interest
- ~ Lecture 8 : Deducing a formula for Compound Interest
- ~ Lecture 9 : Ex 8.3, Q 1 - 3
- ~ Lecture 10 : Ex 8.3, Q 4 - 7
- ~ Lecture 11 : Ex 8.3, Q 9 - 12

=> Algebraic Expressions and Identities :

- ~ Lecture1_Syllabus_Course_Contents_Introduction
- ~ Lecture2_All_About_Algebraic_Expressions
- ~ Lecture3_Algebraic_Terminologies
- ~ Lecture4_Monomial_Binomial_Polynomial
- ~ Lecture5_Like_Vs_Unlike_Terms
- ~ Lecture6_Addition_&_Subtraction_Algebraic_Expressions
- ~ Lecture7_NCERT_EX9.1_Problems_Discussions
- ~ Lecture8_Monomial_Multiplication
- ~ LECTURE9_NCERT_EX_9.2_PROBLEM_DISCUSSIONS
- ~ LECTURE10_MULTIPLICATION_MONOMIAL_BY_POLYNOMIAL
- ~ LECTURE11_NCERT_EX9.3_PROBLEM_DISCUSSIONS
- ~ LECTURE12_MULTIPLYING_POLYNOMIAL_BY_POLYNOMIAL
- ~ LECTURE13_NCERT_EX9.4_PROBLEM_DISCUSSION
- ~ LECTURE14_ALL_ABOUT_IDENTITIES
- ~ LECTURE15_NCERT_EX9.5_PROBLEM_DISCUSSIONS
- ~ LECTURE16_HOTS_ALGEBRAIC_QUESTIONS

=> Visualising Solid Shapes :

- ~ Lecture 1 : Introduction
- ~ Lecture 2 : NCERT Solutions Ex10.1
- ~ Lecture 3 : Maps
- ~ Lecture 4 : Polyhedron Introduction
- ~ Lecture 5 : NCERT Solutions Ex10.3 Question 1,2,3
- ~ Lecture 6 : NCERT Solutions Ex 10.3 Question 4,5,6,7,8

=> Mensuration :

- ~ Lecture 1 : Introduction
- ~ Lecture 2 : NCERT Solution Ex 11.1 Question 1,2
- ~ Lecture 3 : NCERT Solutions Ex11.1 Question 3,4,5
- ~ Lecture 4 : Area of Quadrilateral Introduction
- ~ Lecture 5 : NCERT Solutions Ex11.2 Question 1,2,3,4
- ~ Lecture 6 : NCERT Solutions Ex11.2 Question 5,6,7,8
- ~ Lecture 7 : NCERT Solutions Ex11.2 Question 9,10,11
- ~ Lecture 8 : Surface Area Introduction
- ~ Lecture 9 : NCERT Solutions Ex11.3 Question 1,2
- ~ Lecture 10 : NCERT Solutions Ex11.3 Question 3,4
- ~ Lecture 11 : NCERT Solutions Ex11.3 Question 5,6,7
- ~ Lecture 12 : NCERT Solutions Ex11.3 Question 8,9,10
- ~ Lecture 13 : Volume Introduction
- ~ Lecture 14 : NCERT Solutions Ex11.4 Question 1,2,3,4
- ~ Lecture 15 : NCERT Solutions Ex11.4 Question 5,6,7,8

=> Exponents and Powers :

- ~ Lecture 1 : Understanding Exponents, Multiplicative Inverse
- ~ Lecture 2 : Laws of Exponent
- ~ Lecture 3 : Ex 12.1 Q 1 to 3
- ~ Lecture 4 : Ex 12.1 Q 3 to 7
- ~ Lecture 5 : Numbers In Standard Form
- ~ Lecture 6 : Ex 12.2 Q 1 to 4

=> Direct and Inverse Proportions :

- ~ Lecture 1 : Understanding direct Proportion
- ~ Lecture 2 : Inverse Proportion
- ~ Lecture 3 : Ex 13.1 Q 1 to 10
- ~ Lecture 4 : Ex 13.2 Q 1 to 5
- ~ Lecture 5 : Ex 13.2 Q 6 to 11

=> Factorisation :

- ~ Lecture1_Introduction_&_Content_GoThrough
- ~ Lecture2_Factors_Natural_Numbers_&_Algebraic_Expressions
- ~ Lecture3_What_Is_Factorisation
- ~ Lecture4_Factorisation_By_ReGrouping
- ~ LECTURE5_NCERT_EX14.1_PROBLEM_DISCUSSIONS
- ~ Lecture6_Factorisation_Using_Identities
- ~ Lecture7_Factorisation_For_(x+a)(x+b)
- ~ LECTURE8_NCERT_EX_14.2_PROBLEMS_DISCUSSION
- ~ Lecture9_Monomial_Division
- ~ Lecture10_Polynomial_Division
- ~ Lecture11_NCERT_EX14.3_PROBLEM_DISCUSSIONS
- ~ LECTURE12_SPOTTING_ERROR_&_NCERT_EX14.4_PROBLEM_DISCUSSIONS
- ~ Lecture13_NCERT_EXEMPLAR_MCQ_QUESTIONS_DISCUSSIONS
- ~ LECTURE14_HOTS_ALGEBRAIC_FACTORISATION_QUESTIONS

=> Introduction to Graphs :

- ~ Lecture 1: Coordinates Introduction
- ~ Lecture 2 : Graphs Introduction
- ~ Lecture 3 : Ex 15.1 Que 1-3
- ~ Lecture 4 : Ex 15.1 Question 4
- ~ Lecture 5 Ex 15.1 Question 6&7
- ~ Lecture 6 : Ex 15.2 Question 1&2
- ~ Lecture 7 : Ex 15.2 Question 3&4
- ~ Lecture 8 : Ex15.1 Que 5 part(b)
- ~ Lecture 9 : Ex151 QUE 5part(a)
- ~ Lecture 10 : Ex15.3 QUE 1
- ~ Lecture 11 : Ex 15.3 QUE 2

=> Playing with Numbers :

- ~ LECTURE1_COURSE_CONTENT_&_INTRODUCTION
- ~ LECTURE2_NUMBERS_IN_GENERAL_FORM
- ~ LECTURE3_REVERSING_TWO_DIGIT_NUMBERS
- ~ LECTURE4_REVERSING_THREE_DIGIT_NUMBERS
- ~ LECTURE5_PLAYING_WITH_LETTERS_&_DIGITS
- ~ LECTURE6_DIVISIBILITY_TEST
- ~ LECTURE7_EXEMPLAR_PROBLEM_MCQ_PROBLEM_DISCUSSIONS
- ~ LECTURE8_HOTS_PROBLEM_DISCUSSION

Job Ready Automation Tester with JavaScript Tech Neuron

Topic Name : TESTING

Sub-topic Name : AUTOMATION TESTING

Course link : <https://ineuron.ai/course/Job-Ready-Automation-Tester-with-JavaScript-Tech-Neuron>

Course Description :-

In this live training program, you will be learning everything about Automation using different tools and libraries. We will be starting with JavaScript from the scratch (from zero) and will be automating Web Applications and API's as well. This course includes most of leading tools and framework like Cypress, Playwright, WebDriverIO with different libraries and integration with Chai, Mocha, JEST, Git, Github, Github Actions, Docker and Jenkins (CI-CD). After this course you will be ready to attend interviews and will be able to automate different Web Applications.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => What are JavaScript engines
- => What is Automation
- => What is Automation Testing
- => Cypress Architecture
- => Selenium vs Cypress - Comparison
- => What is API and why API testing is important
- => REST vs SOAP
- => Playwright Explorer
- => Assertion in details with page and element
- => Async vs Sync
- => Locators In WDIO
- => Xpath in detail

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Mukesh Otvani :

~ Myself Mukesh Otvani having 10 years of experience in Automation Testing and worked with Dell International and SAP Labs India. I am also passionate teacher, mentor, have been into teaching for 8 years now and running a YouTube channel with 137000 subscribers and 480+ videos on different tools and libraries.

Curriculum details :-

=> JavaScript :

- ~ What are JavaScript engines
- ~ What ES version of JavaScript is good for us
- ~ Variable and datatypes in JavaScript
- ~ Operators in JavaScript
- ~ Type and Operator precedence in JavaScript
- ~ What are conditionals in JavaScript
- ~ Ternary operator in JavaScript
- ~ Switch in JavaScript
- ~ Coercion and falsy values in JavaScript
- ~ Basics of functions in JavaScript
- ~ Functions in variable User Role in JavaScript
- ~ Understand the context in JavaScript
- ~ Hoisting in JavaScript
- ~ THIS in JavaScript

- ~ Introduction to Array in JavaScript
- ~ Callback and arrow function introduction in array
- ~ Fill and Filter in Array in JavaScript
- ~ Slice in JavaScript
- ~ Objects in JavaScript
- ~ Methods and objects in JavaScript
- ~ For loop basics in JavaScript
- ~ While and do while loops in JavaScript
- ~ For Each loop in JavaScript
- ~ For in and for of loop in JavaScript
- ~ Template literals in JavaScript
- ~ Maps in JavaScript
- ~ Classes and module exports in JavaScript
- ~ Private props getters and setters in JavaScript
- ~ Inheritance in JavaScript
- ~ Promise async and await in JavaScript

=> Automation Foundation :

- ~ What is Automation
- ~ What is Automation Testing
- ~ Advantages of Automation Testing
- ~ When to start and when to stop Automation
- ~ What not to automate and why
- ~ Type Of Automation
- ~ Tools for Automation Testing
- ~ Which tool to select for Automation
- ~ POC before selecting any Automation Tools
- ~ Automation Mindset
- ~ How to switch from Manual to Automation

=> Cypress :

- ~ What is Cypress - Advantage and Limitations
- ~ Cypress Architecture
- ~ Selenium vs Cypress - Comparison
- ~ Downloading and Installing Cypress
- ~ Quick tour of Cypress Test Runner and configuration files
- ~ What is Testing Framework In JavaScript and why do we need Testing Framework
- ~ Testing Frameworks - Mocha, Jasmine, Jest, Karma
- ~ What is Mocha and features of Mocha Framework
- ~ Mocha Structure
- ~ Writing test suites using mocha framework using Describe and Context
- ~ Exclusive test in mocha using .only .skip
- ~ Hooks In Mocha before, beforeEach, after, afterEach
- ~ What is Chai (Assertion Library)
- ~ Mocha with Chai
- ~ Chai assertions using Should
- ~ Chai assertions using Expect
- ~ Chai assertions using Assert
- ~ Write your first Cypress Test - Electron
- ~ Difference between Cypress and cy
- ~ Executing Cypress Test On Chrome
- ~ Executing Cypress Test On Firefox
- ~ Executing Cypress Test On Edge
- ~ Logs In Cypress
- ~ ViewPort In Cypress
- ~ Browser Navigation Commands In Cypress - Back, Forward, Reload
- ~ Cypress Default Assertions for each command
- ~ How to verify urls, title In Cypress
- ~ Cypress Inspector to locate element
- ~ How to use SelectorsHub with Cypress
- ~ Locators In Cypress
- ~ How to write Xpath - Static Xpath, Dynamic Xpath, Xpath Axes, Xpath tricks
- ~ How to Write CSS Selectors in details
- ~ Get method vs Find methods vs Contains methods
- ~ Cypress defaults check before interacting with WebElements
- ~ Type method in detail and assertions
- ~ Type In Cypress with text content
- ~ Type In Cypress with Keyboard Events
- ~ Type In Cypress with force
- ~ Type In Cypress with timeout
- ~ Click in Cypress using locators
- ~ Click in Cypress using coordinates
- ~ Click in Cypress using positions
- ~ Click multiple elements
- ~ How to click when element is hidden or disabled
- ~ Click In Cypress with timeouts
- ~ Click with Key combination - Example - Control + Click, Shift + Click
- ~ How to Interact with Textbox and assertion
- ~ How to Interact with Buttons and assertions
- ~ How to Interact with Checkbox, Radio Buttons and assertions
- ~ How to work with disabled elements
- ~ How to work with hidden elements
- ~ Handling Single Select Dropdown and assertion
- ~ Select values from dropdown using Index
- ~ Select values from dropdown using value
- ~ Select values from disabled dropdown
- ~ Select values from hidden dropdown
- ~ Deselection of dropdown
- ~ How to Select values from Non Select Dropdowns- Bootstrap, AngularJS dropdown etc

- ~ Handle AutoSuggestions In Cypress
- ~ Handle Calendar Control In Cypress
- ~ How to capture and verify error messages in Cypress
- ~ Wait in Cypress
- ~ Pause in Cypress
- ~ Debug in Cypress
- ~ Difference between wait() vs pause() vs debug()
- ~ How to handle multiple webelements - Arrays of WebElements
- ~ Use of next(),last(),first(),eq()
- ~ Keyboard Events In Cypress Example- enter, ESC, alt , delete etc
- ~ Mouse Hover In Cypress using invoke
- ~ Mouse Hover In Cypress using trigger
- ~ Verifying values after mouse hover
- ~ DoubleClick in Cypress using locators
- ~ DoubleClick in Cypress using cordinates
- ~ DoubleClick in Cypress using positions
- ~ How to DoubleClick when element is hidden or disabled
- ~ DoubleClick In Cypress with timeouts
- ~ DoubleClick with Key combination - Example - Control + Click, Shift + Click
- ~ RightClick in Cypress using locators
- ~ RightClick in Cypress using cordinates
- ~ RightClick in Cypress using positions
- ~ How to RightClick when element is hidden or disabled
- ~ RightClick In Cypress with timeouts
- ~ RightClick with Key combination - Example - Control + Click, Shift + Click
- ~ Drag and Drop In Cypress
- ~ Handle Alert Box In Cypress
- ~ Handle Prompt Box In Cypress
- ~ Handle Confirmation Box In Cypress
- ~ Handle Frames in Cypress
- ~ Handle Child tabs in Cypress
- ~ Handle Shadow DOM in Cypress
- ~ How to handle file upload in Cypress
- ~ How to handle file downloads in Cypress
- ~ What is plugins in Cypress and List of plugin in Cypress
- ~ How to use plugin in Cypress
- ~ How to create custom commands in Cypress
- ~ What is Cypress CLI
- ~ How to execute single test from CLI
- ~ How to execute multiple test from CLI
- ~ How to change browser from CLI
- ~ Generating HTML Reports Using Cypress
- ~ Capture videos and screenshots In Cypress
- ~ Running Test in headless mode
- ~ Fixtures in Cypress
- ~ Page Object Model In Cypress
- ~ Framework Implementation
- ~ Cypress Dashboard Service
- ~ Cypress Parallel Test
- ~ How to run Cypress Test on Cloud using BrowserStack
- ~ Push your code from local to github
- ~ Github pull request process
- ~ Creating Branches and merge branches
- ~ What is Jenkins
- ~ Setting Up Jenkins with Email Configurations
- ~ Running cypress test from Jenkins CI
- ~ Creating Jenkins Pipelin for Cypress Test Execution
- ~ What is Github Actions
- ~ Executing Cypress Test using Github Actions

=> API Automation Using Cypress :

- ~ What is API and why API testing is important
- ~ REST vs SOAP
- ~ Status Code
- ~ API term and keyword before starting API Testing
- ~ Write First API Test Using Cypress
- ~ How to make Post API request
- ~ How to make Put API request
- ~ How to make Patch API request
- ~ How to make Delete API request
- ~ Difference between put and patch
- ~ What is Swagger and how to use Swagger
- ~ JSON Object
- ~ JSON Array
- ~ Nested JSON Object Nested JSON Array
- ~ How to verify response
- ~ Handle Authentication and Authorization In Cypress
- ~ Cypress Interview Questions
- ~ Cypress Cheatsheet
- ~ Soure Code
- ~ Automating multiple application

=> Playwright :

- ~ What is Playwright and Features of playwright
- ~ Playwright Architecture
- ~ Selenium Vs Playwright
- ~ Cypress vs Playwright
- ~ Download Node.J and Configure on windows
- ~ Download and Install Visual Code

- ~ Installation of Playwright
- ~ Understanding Playwright folder structure
- ~ Execute sample test from Playwright
- ~ Execute sample test from Playwright in headed mode
- ~ Understanding Configuration file
- ~ Execute test in specific browser
- ~ Locators In Playwright
- ~ Text based search
- ~ Based on CSS
- ~ Find by test-id
- ~ Find multiple web elements
- ~ Filter locators
- ~ Type into elements with text
- ~ Type into elements with keyboard events
- ~ Type into elements with delay
- ~ Type into elements with force
- ~ Click using locator
- ~ Click using coordinates
- ~ Click using positions
- ~ Click with force
- ~ Click with keyboard events
- ~ Capture error message and assert in different ways
- ~ Difference between `textContent()` and `allTextContent()`
- ~ Why `await` does not apply to `allTextContent()`
- ~ Check and Uncheck
- ~ Disable WebElements
- ~ Hidden WebElements
- ~ Selecting values from dropdown using index
- ~ Selecting values from dropdown using value
- ~ Selecting values from dropdown using text
- ~ Deselecting values from dropdown
- ~ Debug from CLI
- ~ Debug from code
- ~ Playwright Inspector
- ~ Step By Step Execute / Resume Execution
- ~ Check logs for each activity
- ~ Playwright Explorer
- ~ Assertion in details with page and element
- ~ Assertion for elements to be checked /unchecked
- ~ Assertion for elements to be disabled / enabled
- ~ Assertion for elements to be Editable
- ~ Assertion for elements to be visible / invisible
- ~ Assertion for text contains
- ~ Assertion for class contains
- ~ Assertion for attribute contains
- ~ URL Assertions
- ~ Title Assertions
- ~ Negating Assertions
- ~ Soft Assertions
- ~ How to deal with multiple web elements
- ~ How to handle calendar controls
- ~ How to handle autosuggestions
- ~ How to handle flaky test
- ~ How to handle waits in Playwright
- ~ What is `AutoWaiting` In Playwright
- ~ Condition checked in `AutoWait`
- ~ Why Playwright fails even after `AutoWait`
- ~ Add `waitFor` condition
- ~ Different `waitFor` conditions for pages and locators
- ~ Modify existing wait timeout for expect and locators
- ~ What is Promise in Playwright
- ~ How to handle `Promise.all`
- ~ Handle multiple tabs in playwright
- ~ How to handle frames in playwright
- ~ Handle alert window in playwright
- ~ `pause` method in playwright
- ~ How to generate report in Playwright
- ~ Attach screenshot in report for each step, on failure
- ~ How to generate pdf in Playwright
- ~ What is codegen
- ~ How to record and play your test in codegen
- ~ Analyse test recorded by codegen
- ~ Execute auto generated scripts from codegen
- ~ Drawbacks of auto generated scripts from codegen
- ~ Mouse Hover events in Playwright
- ~ Keyboard Events in Playwright
- ~ Handle Drag and Drop In Playwright
- ~ How to handle Shadow Dom
- ~ How to change view port in Playwright
- ~ How to emulate devices in Playwright
- ~ How To Perform Visual Testing Using Playwright
- ~ What is Playwright fixture
- ~ Browser Fixture
- ~ Page Fixture
- ~ Context Fixture
- ~ Request Fixture
- ~ What is Playwright Annotations and how to use them
- ~ `test.skip()`

- ~ test.fail()
- ~ test.slow()
- ~ test.only()
- ~ What is Trace Viewer In Playwright
- ~ How To Generate trace for single test
- ~ How To Generate trace for multiple test
- ~ How To analyse trace debugging
- ~ Different flags for tracing
- ~ What is Cross Browser Testing
- ~ How to perform cross browser test in Playwright -sequence
- ~ How to perform cross browser test in Playwright in parallel
- ~ Apply Retry options to execute test again
- ~ What is Test Tagging and how to add tags to your test
- ~ Group of Testcases
- ~ What is design pattern
- ~ What is POM - Page Object Model
- ~ Implement POM in Playwright
- ~ Why not to provide static data in test script
- ~ How to pass test data from json file
- ~ Data Driven Test In Playweight
- ~ What is Git and Github
- ~ Push your code from local to github
- ~ Github pull request process
- ~ Creating Branches and merge branches
- ~ What is Jenkins
- ~ Setting Up Jenkins with Email Configurations
- ~ Running Playwright test from Jenkins CI
- ~ Creating Jenkins Pipelin for Playwright Test Execution
- ~ What is Github Actions
- ~ Executing Playwright Test using Github Actions
- ~ Playwright Interview Questions
- ~ Playwright Cheatsheet
- ~ Soure Code
- ~ Automating multiple application

=> WebdriverIO :

- ~ What is WebDriverIO - WDIO
- ~ Why WebdriverIO
- ~ Selenium vs WDIO
- ~ Cypress vs WDIO
- ~ Playwright vs WDIO
- ~ Components of WDIO
- ~ Service offered by WDIO
- ~ Download Node.J and Configure on windows
- ~ Download and Install Visual Code
- ~ Install WDIO
- ~ Folder Structur
- ~ Configuration file
- ~ What is WDIO test runner
- ~ Execute the sample test
- ~ Reports in WDIO - Different Reporters
- ~ Different CLI commands
- ~ Write first WDIO script in Chrome
- ~ Write first WDIO script in Firefox
- ~ Write first WDIO script in Edge Browser
- ~ Verify URL and title
- ~ Async vs Sync
- ~ Locators In WDIO
- ~ Xpath in detail
- ~ CSS in detail
- ~ What is \$ and \$\$ and when to use and differences
- ~ How to intereact with Webelements
- ~ Handle textbox
- ~ Handle Button
- ~ Handle Links
- ~ Handle radio button and chekboxes
- ~ Handle Dropdown
- ~ How to handle non select dropdown
- ~ Handle autosuggestion
- ~ Handle Calendar
- ~ Verify element states
- ~ REPL Interface
- ~ Handle Shadow DOM
- ~ RightClick
- ~ Double Click
- ~ MouseHover
- ~ ScrollIntoView
- ~ Drag and Drop
- ~ Default matcher
- ~ Page Matcher
- ~ Element Matchers
- ~ waitFor Conditions in WDIO
- ~ waitUntil
- ~ waitForEnabled
- ~ waitForDisplayed
- ~ How to handle frames
- ~ How to handle alerts
- ~ How to handle different tabs/windows
- ~ How to include and exclude test in WDIO

- ~ *Capture Screenshots in WDIO*
- ~ *Retry failed testcases in WDIO*
- ~ *HTML Report in WDIO*
- ~ *PDF In WDIO*
- ~ *Allure Reports*
- ~ *TestData In WDIO*
- ~ *Passing different CLI flags from cmd*
- ~ *Cross Browser Testing In WDIO*
- ~ *Sequential Execution In WDIO*
- ~ *Parallel Execution In WDIO*
- ~ *Hooks In WDIO*
- ~ *before,beforeSuite,beforeHook, beforeTest,beforeCommands*
- ~ *after,afterSuite,afterHook,afterTest,afterCommand*
- ~ *What is design pattern*
- ~ *What is POM - Page Object Model*
- ~ *Adding Custom Commands*
- ~ *Implement POM in WDIO*
- ~ *Why not to provide static data in test script*
- ~ *How to pass test data in WDIO*
- ~ *What is Git and Github*
- ~ *Push your code from local to github*
- ~ *Github pull request process*
- ~ *Creating Branches and merge branches*
- ~ *What is Jenkins*
- ~ *Setting Up Jenkins with Email Configurations*
- ~ *Running Playwright test from Jenkins CI*
- ~ *Creating Jenkins Pipeline for WDIO Test Execution*
- ~ *What is Github Actions*
- ~ *Executing WDIO Test using Github Actions*
- ~ *WDIO Interview Questions*
- ~ *WDIO Cheatsheet*
- ~ *Source Code*
- ~ *Automating multiple application*

Azure Luis

Topic Name : DATA SCIENCE

Sub-topic Name : CHATBOT

Course link : <https://ineuron.ai/course/Azure-Luis>

Course Description :-

With a couple of coding sessions, this course is aimed to be more practical than theoretical. You'll have all the tools you need to build a fully working chatbot and integrate it with other platforms like Facebook and Skype by the conclusion of the course.

Course Features :-

- => Source code
- => Challenges
- => Downloadable resources
- => Quizzes
- => Completion certificate

What you will learn :-

- => Get knowledge of various concepts for building chatbots using Bot Builder SDK and LUIS
- => Chatbot integration with Facebook Messenger, Skype, & Slack
- => Different cloud platforms like Heroku, AWS, Azure chatbot app deployment
- => LUIS: intents, entities, production, model training

Requirements :-

- => No prior experience in any of the chatbots
- => Minimal knowledge of python language
- => Slack, facebook, telegram accounts
- => Interest to learn
- => A system with internet connection
- => Your dedication

Instructors :-

=> Khushali Shah :

~ A data scientist having rich experience working with MNCs and start-ups in the field of data science and machine learning. She has expertise in Chatbot development for various domains & been developing professionally for 6+ years with diverse job history. She also had positions in software module development, web app development, functional designs, requirement gathering, client interaction, and server setup/admin & can help everywhere in the stack; she loves wearing multiple hats to an extent. She also believes in enhancing her skills by training and learning new things day by day.

Curriculum details :-

=> Introduction :

- ~ Course introduction Preview
- ~ What is Chatbot?
- ~ Why Chatbot?

=> LUIS :

- ~ What is LUIS? Preview
- ~ Create account
- ~ Intent & utterances
- ~ Prebuilt domain intent
- ~ Using entities
- ~ Entity types
- ~ Utterances
- ~ Pattern
- ~ Machine learning features
- ~ Prediction score
- ~ Data management
- ~ LUIS and QnA maker
- ~ CI/CD with Luis

=> Build LUIS App :

- ~ Overview
- ~ Azure portal setup
- ~ Intent/entity
- ~ GetWeather API
- ~ Luis App credentials
- ~ Installation
- ~ Code walkthrough
- ~ Bot emulator
- ~ Test Chatbot

=> Course summary :
~ Summary

Web Automation Using Selenium With Java and Cucumber BDD Tech

Neuron

Topic Name : TESTING

Sub-topic Name : AUTOMATION TESTING

Course link : <https://ineuron.ai/course/Web-Automation-Using-Selenium-With-Java-and-Cucumber-BDD-Tech-Neuron>

Course Description :-

In this live training program, you will be learning everything about Automation using different tools and libraries. We will be starting with Java from the scratch (from zero) and will be automating Web Applications and API's as well. This course includes most of leading tools, libraries and framework TestNG, Cucumber, Maven, Git, Github, Github Actions, Docker and Jenkins (CI-CD). After this course you will be ready to attend interviews and will be able to automate different Web Applications.

Course Features :-

- => Course material
- => Course resources
- => Recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate
- => Live support all seven day

What you will learn :-

- => Java from Scratch
- => What is Automation
- => What is Automation Testing
- => Web Automation using Selenium 4
- => Different Framework and Libraries like TestNG, Apache POI, Faker
- => SCM Tools - Git, Github
- => CI Tool- Jenkins
- => Github Actions - Build Pipeline
- => Docker
- => Selenium Grid on premise and on cloud
- => Cucumber - BDD
- => Realtime Scenarios
- => How to crack interviews

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Mukesh Otvani :

~ Myself Mukesh Otvani having 10 years of experience in Automation Testing and worked with Dell International and SAP Labs India. I am also passionate teacher, mentor, have been into teaching for 8 years now and running a YouTube channel with 137000 subscribers and 480+ videos on different tools and libraries.

Curriculum details :-

- => Java :
 - ~ What is Java , JDK, JRE, JVM
 - ~ Download and Install Java
 - ~ Download and Install Eclipse
 - ~ Download and Install IntelliJ
 - ~ Variables In Java
 - ~ Data Types in Java- Primitive Data Type and Non-Primitive Data Type
 - ~ Operators-Arithmetic and Logical operators in Java
 - ~ Looping statement In Java
 - ~ For loop

- ~ while loop, do while loop
- ~ enhanced for loop
- ~ Conditional Statement
- ~ If
- ~ If else
- ~ Nested if else
- ~ Switch statement
- ~ What is Array
- ~ 1D-Arrays, 2D Array Multiple Dimension Array
- ~ Insert, Delete, Update values in array
- ~ Loops with Array
- ~ Object Array
- ~ Access Modifier- Public, Private, Protected, Default
- ~ Scanner Class
- ~ What is OOPS
- ~ Classes, Object in Java
- ~ Static vs Non-static
- ~ Methods In Java
- ~ Inheritance- Single level Inheritance, Multi Level Inheritance
- ~ Polymorphism
- ~ Constructor- Default constructor and parameterized constructor
- ~ Method overloading- Compile time Polymorphism
- ~ Constructor overloading- Compile time Polymorphism
- ~ Method overriding- Run time Polymorphism
- ~ Abstraction
- ~ Encapsulation
- ~ Interface- Core Part in Selenium- WebDriver and WebElement itself is an Interface in Selenium
- ~ Abstract Class
- ~ String class and usage in Selenium- For Different validation and operation
- ~ String Buffer vs String Builder vs String Class
- ~ Wrapper Class In Java
- ~ Collection and Collections- Dynamic data structure and important for the framework and script development
- ~ List- ArrayList and LinkedList
- ~ Set- HashSet, LinkedHashSet, TreeSet
- ~ Map- HashMap, LinkedHashMap, TreeMap
- ~ List vs Set
- ~ Set vs Map
- ~ Exception Handling- Handle Java exception
- ~ Create Custom Exception In Java
- ~ Debugging In Java
- ~ Import Statement and Packages In Java
- ~ Interview Questions

=> Automation :

- ~ What is Automation Testing
- ~ Manual Vs Automation
- ~ Tools for Automation Testing
- ~ Advantages
- ~ Limitation
- ~ Type of Automation
- ~ Roadmap for Selenium

=> Selenium Basics :

- ~ Selenium JSON Wireless Protocol- Selenium API to understand Selenium functionality
- ~ Selenium Architecture- Selenium internal architecture
- ~ Setting up stage- Install/ Configure Selenium in windows and MAC
- ~ Attach Javadoc for Selenium and read Javadoc & Sourcecode of Selenium
- ~ Working with different browser- Chrome, IE, Firefox- Challenges with Each browser and Solution
- ~ Browser Navigation commands
- ~ WebElement commands
- ~ Working with Input box
- ~ Working with Radio button and checkbox
- ~ Working with dropdown
- ~ Working with file uploader
- ~ Working with buttons
- ~ Working with links
- ~ Locators in Selenium
- ~ Id, Name, ClassName, XPath, CSS, TagName, LinkText, PartialLinkText,
- ~ Program with above locators
- ~ Plugin in Chrome and Firefox for XPath
- ~ XPath in Details- Basic to Advance
- ~ CSS in Details
- ~ FindElement and findElements method in detail
- ~ Finding multiple elements and performing actions and validations
- ~ Handling Dynamic WebElement in Selenium
- ~ Interview Questions

=> Selenium Intermediate :

- ~ Handle Calendar- JQuery Calendar, Custom Calendar
- ~ Handle Webtable- Traverse Webtable in Forward direction and reverse direction
- ~ Data Scrapping in Selenium- Extracting all data from Web
- ~ Extract Links and Images and perform validation- Check all link and Images are not broken
- ~ Dropdown (advance methods)- get All Option, get All Selected Option.
- ~ Handling Bootstrap Dropdown
- ~ Handling Angular JS Dropdown
- ~ Different kind of Waits in Selenium
- ~ PageLoadTimeout
- ~ ImplicitWait
- ~ ExplicitWait

- ~ *FluentWait*
- ~ *Thread.sleep* vs *Selenium Waits*
- ~ *How to handle all sync issues in Selenium*
- ~ *Switch to commands in Selenium*
- ~ *Handle JavaScript Alert*
- ~ *Handle Custom Alert*
- ~ *Handle Bootstrap Alert*
- ~ *Handle Frames using id, name, Web elements*
- ~ *Handle nested frames*
- ~ *Handle multiple windows/tab*
- ~ *Handle Advertise popup*
- ~ *Handle Random Popup*
- ~ *Handle Complex Gestures in Selenium*
- ~ *Working with Mouse Hover, Right click, Double click, Drag and Drop*
- ~ *Perform Keyboard events*
- ~ *Robot class usage*
- ~ *Difference between Robot Class with Actions Class*
- ~ *Capture screenshot in Selenium*
- ~ *Create method/Utility for screenshot*
- ~ *Append timestamp in Selenium*
- ~ *Interview Questions*
- ~ *Working with Windows events (cannot be handled by Selenium)*
- ~ *AutoIT Introduction, Installation*
- ~ *Handle file uploader using AutoIT*
- ~ *Handle windows popup using AutoIT*
- ~ *Headless Browser in Selenium*
- ~ *Chrome Headless, Firefox Headless*
- ~ *Headless Browser advantage and disadvantage*
- ~ *JavaScriptExecutor in Selenium*
- ~ *Scrolling Page*
- ~ *Scrolling into View*
- ~ *Performing many events through*
- ~ *Handle disable Web elements via JavaScriptExecutor*
- ~ *Handle hidden Web elements via JavaScriptExecutor*
- ~ *Selenium Exceptions*
- ~ *How to handle real-time exceptions in Selenium and program for each exception*
- ~ *Desired Capability in Selenium*
- ~ *Customization of Browser settings using ChromeOption, FirefoxOption, InternetExplorerOption*
- ~ *Interview Questions*

=> **Maven :**

- ~ *What is Maven and Why Maven Required for Automation*
- ~ *Download and Installing Maven in Windows and plugin in eclipse*
- ~ *Creating first build in Maven*
- ~ *Different Goals in Maven*
- ~ *How to parameterized Maven build*
- ~ *Running maven build from eclipse and from the command prompt*
- ~ *Interview Questions*

=> **TestNG :**

- ~ *TestNG-UnitTest Framework*
- ~ *TestNG in Details*
- ~ *Advantage of using TestNG*
- ~ *Download and Write the first test script in TestNG*
- ~ *TestNG document understanding*
- ~ *Different annotation usage*
- ~ *How to run the test in sequence manner*
- ~ *How to provide dependency between test cases*
- ~ *How to use assert values and validation*
- ~ *Soft Assert vs Hard Assert*
- ~ *Reports in TestNG*
- ~ *Creating a test suite in TestNG to run multiple test cases*
- ~ *Passing parameter to test via testng.xml file*
- ~ *Logs in TestNG*
- ~ *Cross browser testing in Selenium*
- ~ *Parallel browser testing in Selenium*
- ~ *Interview Questions*

=> **Apache POI :**

- ~ *Reading excel via Apache POI*
- ~ *Reading properties file using properties class*

=> **Design Pattern :**

- ~ *Design POM Page Object Model*

=> **Framework :**

- ~ *Framework Definitions*
- ~ *Type of Automation framework, usage, features and myth about the framework*
- ~ *Data Driven Framework from scratch*
- ~ *Hybrid Framework*
- ~ *Creation of framework Skelton*
- ~ *Different component of the framework*
- ~ *Browser Factory Creation*
- ~ *Data Provider- Config and Excel Data Provider- Test Data and config file*
- ~ *Base Class creation and usage*
- ~ *Creation of library and utility*
- ~ *Creating Multiple pages with smart locators*
- ~ *Creating test cases with multiple assertions*
- ~ *Integration with extent report.*
- ~ *Executing scripts from testng*

- ~ Execution of scripts via Maven build
- ~ Interview Questions

=> Selenium Grid :

- ~ Selenium Grid- Introduction to Selenium Grid and Usage
- ~ Setting up the hub and node with different configurations
- ~ Running the test on different systems using Selenium grid
- ~ Running existing Selenium test with different cloud vendors- Integration with Browser Stack
- ~ Execution on test with different browsers and device combination.
- ~ Interview Questions

=> Docker :

- ~ What is Docker
- ~ Why do we need Docker
- ~ Download and Install Docker
- ~ Create your first container
- ~ Usefull docker commands
- ~ Setting up Selenium Grid using Docker
- ~ Interview Questions

=> Git- Github :

- ~ Creating complete CI for Automated Test
- ~ Introduction about Git, GitHub
- ~ Setting up first GitHub repository
- ~ Cloning repository using SSH and HTTP
- ~ Integrate our framework to git via Eclipse
- ~ Pushing and pulling the code via Git
- ~ Branching In GIT
- ~ What is pull request
- ~ Handle Merge Conflict
- ~ Interview Questions

=> Jenkin- Introduction :

- ~ Setting up Jenkins with java, git, maven, etc
- ~ Running first Jenkins job
- ~ Running multiple Jenkins job via Jenkins Pipeline
- ~ Emailing Reports via Jenkins
- ~ Scheduler in Jenkins
- ~ Hooks In Jenkins
- ~ Interview Questions

=> CI CD Using Github Actions :

- ~ What is Github Actions
- ~ Jenkins vs Github Actions
- ~ What is workflow
- ~ What is Jobs
- ~ What is YAML file
- ~ Create first Github Workflow
- ~ Execution of workflow automatically based on events
- ~ Execution of workflow automatically based on scheduler
- ~ Execution of workflow manually
- ~ Execution of workflow automatically on MAC, Windows, MAC
- ~ Dependency between jobs in Github Actions
- ~ Interview Questions

=> Cucumber - BDD :

- ~ What is BDD
- ~ What is Cucumber
- ~ Write first automated testing using Cucumber
- ~ Cucumber TestRunner
- ~ Gherkins
- ~ Examples In Cucumber
- ~ Scenario In Cucumber
- ~ Scenario Outline
- ~ Hooks In Cucumber
- ~ Different Flags on Test Runner
- ~ Background In Cucumber
- ~ Cucumber Test In Parallel
- ~ Integration with existing framework
- ~ Reports in Cucumber

=> Interview :

- ~ Discussion over more than 100 + interview questions for freshers and experience candidate
- ~ Resume Discussion
- ~ Mock Interviews

Stats for Beginners

Topic Name : DATA SCIENCE

Sub-topic Name : STATS

Course link : <https://ineuron.ai/course/Stats-for-Beginners>

Course Description :-

If the goal of your career as a Data Scientist or Business Analyst then brushing up on your statistics skills is something you need to work on. But it's a difficult task to learn/re-learn all the stats seems like a daunting task. That's because we created this course. Here you will quickly get the absolutely essential stats knowledge for a Data Scientist or Analyst.

Course Features :-

- => Lifetime Dashboard
- => Free Course
- => Certificate
- => Assignment
- => Quiz

What you will learn :-

- => Understand what a Normal Distribution is
- => Explain the difference between continuous and discrete variables
- => Understand the Central Limit Theorem
- => Use the Z-Score and Z-Tables
- => Understand the difference between a normal distribution and a t-distribution
- => Create confidence intervals
- => Understand standard deviations
- => Understand what a sampling distribution is
- => Apply Hypothesis Testing for Proportions
- => Use the t-Score and t-Tables

Requirements :-

- => Basics math understanding

Instructors :-

- => krish naik :

~ Having 10+ years of experience in Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

- => How to Learn Statistics for Data Science As A Self Starter- Follow My Way :
 - ~ Statistics Introduction Preview
- => Population vs Sample in Statistics
- => Gaussian distribution or Normal Distribution in statistics
- => Log Normal Distribution in Statistics
- => Covariance in Statistics
- => STATISTICS- Mean, Median And Mode Explained Easily
- => STATISTICS- Population VS Sample and its Importance
- => STATISTICS- What are Random Variables and its Types and its Importance?
- => STATISTICS- Gaussian/ Normal Distribution
- => STATISTICS- What is Central Limit Theorem?
- => STATISTICS- Chebyshev's Inequality
- => Statistics- What is Pearson Correlation Coefficient? Difference between Correlation and Covariance
- => Spearman's rank correlation coefficient- Statistics
- => Statistics-Finding Outliers in Dataset using Z- score and IQR
- => Standardization Vs Normalization- Feature Scaling

Complete ReactJS Developer Bootcamp

Topic Name : WEB DEVELOPEMENT

Sub-topic Name : REACT

Course link : <https://ineuron.ai/course/Complete-ReactJS-Developer-Bootcamp>

Course Description :-

This course will teach you React.js in a hands-on manner, utilizing all of the most up-to-date patterns and best practices. To become a React.js developer, you will master all of the foundations as well as advanced ideas and associated subjects. This course will provide you with a wealth of essential material and expertise, whether you are new to React or have some basic React experience.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => React templates
- => React states
- => React hooks
- => React context API
- => Firebase integration
- => Redux Apps

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

- => Introduction :
 - ~ Into to REACTJS course
- => After launch updates :
 - ~ React router v6
- => Getting started with ReactJS :
 - ~ How to use exercise files
 - ~ What is react and myths
 - ~ Tools that we need
- => Going All classic :
 - ~ Section 2 introduction
 - ~ Finishing the hello world task
 - ~ Delete and recreate everything
 - ~ Adding CSS to our Hello World
 - ~ Everything in its own file
 - ~ Reusable components
- => Create a react template :
 - ~ Section 3 introduction
 - ~ Understand the existing template
 - ~ Move navbar and understand the errors
 - ~ Convert the HTML template into React App
 - ~ Reusable Card and Assignment
- => Getting friendly with states :
 - ~ Section 4 introduction
 - ~ What are props and states

- ~ Preparing the state based applications
- ~ Complete counter application
- ~ Assignment for counter app

=> Building a Tic Tac Toe :

- ~ section 5 Introduction
- ~ Your need to study first
- ~ Preparing the Tic Tac Toe
- ~ Sending icons from components
- ~ Setup layout for tictactoe
- ~ Game is almost working
- ~ Finishing tictactoe and assignment

=> Learn React Context API with projects :

- ~ Section 6 Introduction
- ~ The problem that contextAPI solves
- ~ Detail on Context and Provider
- ~ Detail on Consumer in contextAPI
- ~ Understand the working of dark and light mode
- ~ Creating a theme Toggler with Context API
- ~ Finishing the theme switcher app

=> App with Context API with reducers and actions :

- ~ Section 7 introduction
- ~ What are we building here
- ~ Create brain of the application
- ~ useReducer for our app
- ~ Add an input form
- ~ Sending a dispatch
- ~ Display the context data and dispatch

=> Local storage and useEffect hooks :

- ~ Section 8 introduction
- ~ Introducing the Effect hook
- ~ A form to submit the data
- ~ Looping through all the values
- ~ Hooks and local storage in action

=> Learn to handle API :

- ~ Section 9 introduction
- ~ Learn to read docs for API
- ~ lets read Axios docs
- ~ Drill down the API
- ~ Extracting information from API

=> Designing a shopping cart API :

- ~ Section 10 introduction
- ~ A walk through Pexels and JSON
- ~ Add item to the cart
- ~ Buy item and remove item
- ~ Fetching photos from API
- ~ Store everything in state
- ~ Card for every product
- ~ Create cart section
- ~ Bring the shop together
- ~ Removing the duplicate

=> Firebase with Github App :

- ~ Section 11 introduction
- ~ What we are about to build
- ~ React Router crash course
- ~ Your tour to configure firebase
- ~ Read firebase docs with me
- ~ Creating components for firebase app
- ~ Bring in the react router
- ~ Headers and Footers
- ~ Conditional rendering in Navbar
- ~ Adding firebase configuration
- ~ User Signup in firebase
- ~ Logout and signin user
- ~ User card component
- ~ Repo component
- ~ Home page and finish the app

=> Firebase real time database :

- ~ Section 12 introduction
- ~ A challenge application
- ~ Firebase real time database
- ~ Setting context and actions
- ~ Creating reducers for contact
- ~ Header and Footer tasks
- ~ How to upload image in firebase storage
- ~ Add and update contact in firebase
- ~ Add or update finder
- ~ Update star and delete contact
- ~ Use dispatch and FIXME
- ~ Get all data from firebase
- ~ Loop through firebase object
- ~ Firebase finale and assignment

=> Bonus-Redux App :

- ~ 3 Principles of redux
- ~ Bring in the central state
- ~ Actions make redux simpler
- ~ Reducer - brain part of app
- ~ Component dispatching the info
- ~ 2 most important method for Redux
- ~ Provider to give access of store
- ~ Finally creating that store

=> More bonus stuff -Extra production tips :

- ~ Axios optimise API calls

=> Bonus updates :

- ~ React 18 updates

Data Structure and Algorithm Interview Preparation

Topic Name : DATA STRUCTURE

Sub-topic Name : DSA INTERVIEW

Course link : <https://ineuron.ai/course/Data-Structure-and-Algorithm-Interview-Preparation>

Course Description :-

This course is designed mostly for Data structure and Algorithms test takers.

Course Features :-

=> Quizzes

=> Course completion certificate

What you will learn :-

=> DSA Theoretical Test

=> DSA Practical Test

=> DSA Aptitude Test

Requirements :-

=> System with minimum i3 processor or better

=> At least 4 GB of RAM

=> Working internet connection

=> Dedication to solve

Curriculum details :-

=> Data structure and Algorithms Test :

- ~ DSA Test 1
- ~ DSA Test 2
- ~ DSA Test 3
- ~ DSA Test 4
- ~ DSA Test 5
- ~ DSA Test 6
- ~ DSA Test 7
- ~ DSA Test 8
- ~ DSA Test 9
- ~ DSA Test 10
- ~ DSA Test 11
- ~ DSA Test 12
- ~ DSA Test 13
- ~ DSA Test 14
- ~ DSA Test 15
- ~ DSA Test 16
- ~ DSA Test 17
- ~ DSA Test 18
- ~ DSA Test 19
- ~ DSA Test 20

Tech Awareness

Topic Name : K12

Sub-topic Name : CLASS6

Course link : <https://ineuron.ai/course/Tech-Awareness>

Course Description :-

We will teach you about latest technology changes, news, how-tos and more.

Course Features :-

- => Online Instructor-led learning
- => Practical Implementation
- => Integrate academic knowledge with the tech
- => Real-time Project
- => Live Class Recording
- => Doubt Clearing
- => Assignment in all the Module
- => Quiz in every Module
- => Career Counselling
- => Completion Certificate

What you will learn :-

- => New technology
- => Social Media Awareness
- => Technologies Roles in Career

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

- => Shivan Kumar :
 - ~ Associate Data Scientist, Mentor, and Kaggle Master with 2 Years of Experience. Experience in building models that translate data points into business insights. Highly accurate at collecting, analyzing, and interpreting large datasets, developing machine learning, deep learning, Chatbots models, and deploying the solutions on the cloud. I also love to participate in Hackathons. In my free time, I like to mentor students to learn Data Science and achieve their goals.

Curriculum details :-

- => Course Introduction :
 - ~ Welcome to Tech Awareness course
 - ~ What you will learn from this course
 - ~ Course pre-requisites
 - ~ Why tech awareness is important?
 - ~ Who is this course for?
 - ~ What you will get from this course?
 - ~ How to get access to course materials?
 - ~ What career path you can follow after completion of this course?
- => Tech Awareness :
 - ~ Introduction to Technology
 - ~ Digital Technology vs Traditional Technology
 - ~ Impact of Technology on Kids
 - ~ Internet Technology
 - ~ Social Media Awareness
 - ~ Negative Impact vs Positive Impact
 - ~ When and How to Set Technology Limits for Kids
 - ~ A balanced approach to use technology
 - ~ Technology's advantages and drawbacks
 - ~ Technologies Roles in Career
 - ~ Why Programming came into existence?

Tableau Foundation Course

Topic Name : DATA ANALYTICS

Sub-topic Name : TABLEAU

Course link : <https://ineuron.ai/course/Tableau-Foundation-Course>

Course Description :-

Tableau enables critical decision-makers to learn how to display data and uncover data patterns such as customer purchase behavior, sales trends, or production bottlenecks. This course will cover all of Tableau's capabilities that allow you to explore, experiment with, prepare, and present data fast and beautifully throughout an organisation, and we'll walk you through the entire process so you can make an impact and join the industry.

Course Features :-

- => Course Materials
- => Self Paced Learning
- => Lifetime Dashboard Access
- => Completion Certificate

What you will learn :-

- => Tableau desktop installation
- => Connecting Tableau with a variety of data sources, including excel and CSV files.
- => Creating interactive dashboard
- => Creating data stories
- => Generating business insights
- => Sorting, Filtering
- => Marks Card
- => Formatting in Tableau
- => Lines and Bands
- => Charts in Tableau

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

=> Dr Nishtha Jain :

~ I am a doctor by profession but a teacher by passion. I have been into the teaching profession for the last 3 years. I have been and am still a mentor for various courses which include technical as well as non-technical ones. These include MS-Excel, Tableau, Computer basics, Biology, English, etc. I love to learn, explore and share my knowledge to whatever extent possible. Being an ardent educator, I have always helped all my students and will continue to do the same.

Curriculum details :-

- => Introduction :
 - ~ Introduction - BI and Data Visualization
- => Tableau - Introduction and Architecture :
 - ~ Tableau suite and system requirements
 - ~ Tableau architecture and Why Tableau
 - ~ Tableau installation
- => Data in Tableau :
 - ~ Datatypes and Desktop UI
 - ~ Live vs Extract connection
 - ~ Dimensions, Measures, Continuous and Discrete
- => Sets in Tableau :
 - ~ Sets in Tableau
- => Sorting, Filtering :
 - ~ Sorting and Filtering
 - ~ Advanced filtering
- => Parameters :
 - ~ Parameters in Tableau
- => A few basics :

~ *Hide, Unhide, Rename, Copy, Split*

=> Groups, Folders and Hierarchies :

~ *Groups and Folders*

~ *Hierarchies*

=> Marks Card :

~ *Marks card, Part 1*

~ *Marks card, Part 2*

=> Views :

~ *Views in Tableau*

=> Highlighting :

~ *Highlighting in Tableau*

=> Formatting in Tableau :

~ *Formatting - Font*

~ *Formatting - Alignment, Shading*

~ *Formatting - Border, Lines, Fields, Title, Caption*

=> Lines and Bands :

~ *Reference lines, bands, distribution*

~ *Zero lines and Drop lines*

=> Tableau Worksheets :

~ *Working on worksheets*

=> Charts in Tableau - Part 1 :

~ *Charts' Introduction*

~ *Bar (Column) Charts*

~ *Pie Charts*

~ *Treemap*

~ *Packed bubbles*

=> Calculated fields :

~ *Calculated fields*

=> Charts in Tableau - Part 2 :

~ *Wordmaps or Wordclouds*

~ *Bins and Histogram*

~ *Line Charts*

~ *Scatter Plot*

~ *Text tables*

~ *Maps*

~ *Dual Axes charts, Part 1*

~ *Dual Axes charts, Part 2*

=> Aggregation and Granularity :

~ *Aggregation and Granularity*

=> Conditional formatting :

~ *Conditional formatting, Part 1*

~ *Conditional formatting, Part 2*

=> Charts in Tableau - Part 3 :

~ *Funnel chart and types*

~ *Gantt and Waterfall Charts*

~ *Donut and multiple Donut Charts*

~ *Calendar Chart*

~ *Dumbbell Chart*

=> Charts in Tableau Part - 4 :

~ *Animation charts*

~ *Heatmaps*

~ *Bullet graphs*

~ *Bump Chart*

=> Database Functions in Tableau :

~ *Database Functions in Tableau*

=> Box and Whisker Plot :

~ *Box and Whisker, Part 1*

~ *Box and Whisker, Part 2*

=> Table Calculations and Pareto :

~ *Table calculations*

~ *Running total and Pareto Chart*

=> Analytics Pane :

~ *Analytics pane 1*

~ *Analytics pane 2*

~ *Analytics pane 3*

=> Time Series and Forecasting :

~ *Time series analysis and Forecasting*

Solidity

Topic Name : BLOCKCHAIN

Sub-topic Name : SOLIDITY

Course link : <https://ineuron.ai/course/Solidity>

Course Description :-

Solidity & Solana Blockchain course is designed to provide an in depth knowledge on various aspects & concepts of blockchain & Solidity. A step by step learning will be help to focus on each & every parameter of Blockchain. This course will take you into a deep dive into the state of the art blockchain technology and how to go about writing smart contracts in the ethereal platform. Moreover, this is a project-ready course which will help you take whatever you learn and apply it into a real-world portfolio-ready app, which you can showcase to the world.

Course Features :-

- => Understand the why engineers would want to create an app with Ethereum
- => Build compelling blockchain applications using the Ethereum Blockchain
- => Design, test, and deploy secure Smart Contracts
- => Learn the true purpose and capabilities of Ethereum and Solidity
- => Use the latest version of Ethereum development tools (Web3 v1.0)
- => See practical examples to comprehend what the smart contracts are
- => Learn more about solana Blockchain
- => Learn more about IPFS, NFT's, Oracles and DeFI

What you will learn :-

- => Solidity Fundamentals
- => Smart Contracts in Solidity
- => Data types and Variables
- => Functions
- => Storage vs Memory
- => Events and logs
- => Factory contract
- => Inheritance
- => Inline Assembly
- => Application Binary Interface
- => Smart Contracts Pitfalls , Testing and Debugging
- => Testing smart Contracts
- => Unit tests
- => Integration Tests
- => Javascript tests
- => Smart Contract Best Practices
- => Creating our own cryptocurrency on Ethereum Network
- => What are ICO and what are tokens
- => Understanding about ERC-20
- => Writing code for our cryptocurrency
- => Safe Math
- => Creating the cryptocurrency
- => Deploying it to the network
- => Solana Blockchain
- => Introduction to solana Blockchain
- => Creating our own cryptocurrency on the Solana Network
- => Understanding about Sol-Tokens
- => Writing code for our cryptocurrency
- => Deploying the currency to the network.

- => Creating our own Solana Token using CLI
- => Installing Virtual Box Ubuntu
- => Downloading the Solana CLI
- => Creating the tokens
- => Web 3.0 & Connecting everything into a project
- => What is Web 3.0 ?
- => iNeuron Marketplace course
- => Installing npm, git and node.js
- => Basic project setup
- => Creating the marketplace contract
- => Adding courses
- => Buying courses
- => Building out the front end
- => Building out the front end part 2
- => Deploying the project
- => A little more about ethereum
- => Ethereum naming service
- => Intro to IPFS
- => Oracles
- => DeFi
- => NFTs
- => What are NFTs and ERC721
- => Creating our project and installing in dependencies
- => Creating the contract
- => Creating the scripts
- => iPFS
- => Deploying the NFT to the network.

Requirements :-

- => A computer/laptop
- => Good internet connection
- => Will to learn
- => Beginner level understanding about Javascript, Nodejs and React

Curriculum details :-

- => Introduction :
 - ~ *Introduction to course Preview*
- => Solidity Fundamentals :
 - ~ *Smart Contracts in Solidity Preview*
 - ~ *Basic-Smart-Contract-Part1*
 - ~ *Basic Smart Contract Part 2*
 - ~ *Data types and Variables - part 1*
 - ~ *Data types and Variables - part 2*
 - ~ *Functions*
 - ~ *Storage vs Memory*
 - ~ *Events and logs*
 - ~ *Factory contract*
 - ~ *Security Of Smart Contracts*
 - ~ *Inheritance*
 - ~ *Inline Assembly*
 - ~ *Application Binary Interface*
- => Smart Contracts Pitfalls, Testing and Debugging :
 - ~ *Unit tests*
 - ~ *Integration Tests*
 - ~ *Javascript tests*
 - ~ *Smart Contract Best Practices*
- => Creating our own cryptocurrency on Ethereum Network :
 - ~ *What are ICO and what are tokens Preview*
 - ~ *Understanding about ERC-20*
 - ~ *Writing code for our cryptocurrency*
 - ~ *Safe Math*
 - ~ *Creating the cryptocurrency*
 - ~ *Deploying it to the network*
- => Solana Blockchain :

- ~ *Introduction to solana Blockchain Preview*
- ~ *Creating our own cryptocurrency on the Solana Network using CLI - part 1*
- ~ *Creating our own cryptocurrency on the Solana Network using CLI - part 2*
- ~ *Creating our own cryptocurrency on the Solana Network using CLI - part 3*
- ~ *Creating our own cryptocurrency on the Solana Network using Javascript - part 1*
- ~ *Creating our own cryptocurrency on the Solana Network using Javascript - part 2*
- ~ *Creating our own cryptocurrency on the Solana Network using Javascript - part 3*
- ~ *Creating our own cryptocurrency on the Solana Network using Javascript - part 4*

=> Web 3.0 & Connecting everything into a project :

- ~ *What is Web 3.0 ?*
- ~ *iNeuron Marketplace - part1*
- ~ *iNeuron Marketplace - part2*
- ~ *iNeuron Marketplace - part3*
- ~ *iNeuron Marketplace - part4*
- ~ *iNeuron Marketplace - part5*
- ~ *iNeuron Marketplace - part6*
- ~ *iNeuron Marketplace - part7*
- ~ *iNeuron Marketplace - part8*

=> A little more about ethereum :

- ~ *Ethereum naming service*
- ~ *Intro to IPFS*
- ~ *Oracles*
- ~ *DeFi*

=> NFTs :

- ~ *What are NFTs and ERC721*
- ~ *Create Your own NFT part 1*
- ~ *Create Your own NFT part 2*
- ~ *Create Your own NFT part 3*
- ~ *Create Your own NFT part 4*

Statistics

Topic Name : DATA SCIENCE

Sub-topic Name : STATS

Course link : <https://ineuron.ai/course/Statistics>

Course Description :-

Statistics is the discipline that concerns the collection, organization, analysis, interpretation and presentation of data. Statistics is the foundation behind all the work you want to do regarding Data Science. So, you must know all the statistical concepts to learn data science well. In this course, you will learn all the statistical concepts in detail that will be highly beneficial for various fields of Data Science.

Course Features :-

- => Challenges
- => Quizzes
- => Assignments
- => Downloadable Resources
- => Completion Certificates

What you will learn :-

- => Understand what a Normal Distribution is.
- => Explain the difference between continuous and discrete variables
- => Understand the Central Limit Theorem
- => Use the Z-Score and Z-Tables
- => Understand the difference between a normal distribution and a t-distribution
- => Create confidence intervals
- => Understand standard deviations
- => Understand what a sampling distribution is
- => Apply Hypothesis Testing for Proportions
- => Use the t-Score and t-Tables

Requirements :-

- => Basic understanding of Maths
- => A system with internet connection
- => Your dedication

Instructors :-

=> krish naik :

~ Having 10+ years of experience in Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

=> Course introduction :

~ Introduction Preview

=> Stats Fundamental :

~ Statistics Preview

~ Inferential Statistics

~ Descriptive Statistics

~ Mean, Median and Mode

~ Population vs Sample

~ Guassian or Normal Distribution

~ Log Normal Distribution

~ Covariance

~ Central Limit Theorem

~ Chebyshev's inequality

~ Pearson Correlation Coefficient

~ Spearman's Rank Correlation Coefficient

~ Standardization vs Normalization

=> Python :

~ Use of Python in Statistics

=> Representation and interaction with Data :

~ Data as a table

~ Pandas DataFrame

=> Hypothesis testing: Comparing two groups :

- ~ *Student's T-test*
- ~ *Paired test*

=> Linear models, multiple factors, and analysis of variance :

- ~ *Python formulas for specifying statistical models*
- ~ *Multiple Regression*
- ~ *Analysis of variance(ANOVA)*

=> Visualization: Statistical exploration using Seaborn :

- ~ *Pairplot: scatter matrices*
- ~ *Implot: plotting a univariate regression*

=> Testing for interactions

ML Interview Prepration

Topic Name : DATA SCIENCE

Sub-topic Name : MACHINE LEARNING INTERVIEW

Course link : <https://ineuron.ai/course/ML-Interview-Prepration>

Course Description :-

Machine Learning Interview-ready course has been created specifically to familiarise you with the types of questions you may encounter during your interview. Machine learning interviews necessitate a broad understanding of machine learning. We've put together a set of questions to see how well you know machine learning principles and technologies.

Course Features :-

- => Challenges
- => Quizzes
- => Downloadable resources

What you will learn :-

- => Profile Building
- => System Designing
- => Domain Understanding

Requirements :-

- => Prior Knowledge of machine Learning
- => A system with stable internet connection
- => Your dedication

Instructors :-

- => Sudhanshu Kumar :
 - ~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

- => Interview Questions :
 - ~ ML Question Discussion part 1 Preview
 - ~ ML Question Discussion part 2 Preview

Alteryx

Topic Name : DATA ANALYTICS

Sub-topic Name : DASHBOARDING

Course link : <https://ineuron.ai/course/Alteryx>

Course Description :-

Upskill your analytics skills through the power of Alteryx Platform. Alteryx is an analytical platform enabling us to explore and visualize new discoveries in data through immersive dashboards and advanced analytics. You will be able to enhance your skill by exploring this Alteryx Analytical platform.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Alteryx Features
- => Analytics
- => Alteryx visualization
- => Dashboard

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

=> Khushali Shah :

~ A data scientist having rich experience working with MNCs and start-ups in the field of data science and machine learning. She has expertise in Chatbot development for various domains & been developing professionally for 6+ years with diverse job history. She also had positions in software module development, web app development, functional designs, requirement gathering, client interaction, and server setup/admin & can help everywhere in the stack; she loves wearing multiple hats to an extent. She also believes in enhancing her skills by training and learning new things day by day.

Curriculum details :-

=> Course Introduction :

- ~ Syllabus overview Preview
- ~ Alteryx installation Preview
- ~ Alteryx features

=> Dashboard :

- ~ Alteryx dashboard
- ~ Dashboard features
- ~ Loading data
- ~ Interactive graphs

Fundamentals of Database

Topic Name : K12

Sub-topic Name : CLASS10

Course link : <https://ineuron.ai/course/Fundamentals-of-Database>

Course Description :-

By taking up this course, you will learn the fundamentals of Databases along with SQL concepts such as Datatypes, Operators, Expressions, DDL, DML, TCL, DQL, and many more. Upon successful completion of the course, students will be able to create their Databases and also will be able to manage pre-existing Databases.

Course Features :-

- => Online Instructor-led learning
- => Practical Implementation
- => Integrate academic knowledge with the tech
- => Real-time Project
- => Live Class Recording
- => Doubt Clearing
- => Assignment in all the Module
- => Quiz in every Module
- => Career Counselling
- => Completion Certificate

What you will learn :-

- => Introduction of Database
- => Introduction to DBMS
- => Types of DBMS
- => Object-oriented Database
- => Introduction to SQL
- => Features of SQL
- => Applications of SQL
- => Datatypes in SQL
- => SQL operators
- => SQL Data Definition Language
- => SQL Data Manipulation Language
- => SQL View

Requirements :-

- => Interest to learn
- => Dedication
- => System with good internet connection

Curriculum details :-

- => Introduction to Database :
 - ~ Dashboard overview
 - ~ Course overview
 - ~ Who is this course for?
 - ~ Course outcome
 - ~ What is a database?
 - ~ Why you should learn database?
 - ~ History of database
 - ~ Types of database
 - ~ What is DBMS?
 - ~ Types of DBMS
 - ~ What is a hierarchical database?
 - ~ What are network databases?
 - ~ What are relational databases(RDBMS)?
 - ~ What is a object oriented database?
- => Assignment 1 :
 - ~ How would you distinguish RDBMS apart from other databases?
- => SQL Introduction :

- ~ What is SQL?
- ~ History of SQL
- ~ Features of SQL
- ~ Applications of SQL
- ~ Why we should learn SQL?
- ~ Prerequisites to learn SQL
- ~ SQL comments
- ~ What is SQL server languages?
- ~ Types of SQL server languages
- ~ Online SQL Server Editor

=> Assignment 2 :

- ~ What kinds of real-time applications can be created with SQL?

=> SQL Syntax :

- ~ SQL Syntax
- ~ SQL Keywords
- ~ SQL Comments
- ~ SQL Commands
- ~ SQL Statements

=> Assignment 3 :

- ~ Write SQL syntax for WHERE and SELECT clause.

=> SQL Datatypes :

- ~ What are the SQL datatypes?
- ~ Why we use datatypes in SQL?
- ~ String data types
- ~ Numeric data types
- ~ Date and Time data types
- ~ Binary datatypes
- ~ MISC datatypes

=> Assignment 4 :

- ~ Do categorized SQL datatypes with examples for real time applications?

=> SQL Operators :

- ~ What is an SQL operator?
- ~ Why we use SQL operator?
- ~ Types of SQL operator
- ~ SQL Arithmetic operators
- ~ SQL Comparison operators
- ~ SQL Logical operators

=> Assignment 5 :

- ~ Write SQL syntax using arithmetic and logical operators.

=> SQL Expressions :

- ~ What is SQL expression?
- ~ Why we use SQL expression?
- ~ Types of SQL expression
- ~ Boolean expression
- ~ Numeric expression
- ~ Date expression

=> Assignment 6 :

- ~ Write at least three SQL queries with boolean and numeric expressions

=> SQL DDL :

- ~ What is SQL data definition language(DDL)?
- ~ Types of DDL
- ~ CREATE command
- ~ DROP command
- ~ ALTER command
- ~ TRUNCATE command
- ~ COMMENT command
- ~ RENAME command

=> Assignment 7 :

- ~ Write six SQL queries using all DDL commands for student database.

=> SQL DML :

- ~ What is SQL data manipulation language(DML)?
- ~ Types of DML
- ~ INSERT command
- ~ UPDATE command
- ~ DELETE command

=> Assignment 8 :

- ~ Write three SQL queries using all DML commands for student database.

=> SQL DCL :

- ~ What is SQL data control language(DCL)?
- ~ Types of DCL
- ~ GRANT command
- ~ REVOKE command

=> Assignment 9 :

- ~ Write two SQL queries using all DCL commands for student database.

=> SQL DQL :

- ~ What is SQL data query language(DQL)?
- ~ SELECT command

=> Assignment 10 :

~ Write SQL queries using *SELECT* commands for student database.

=> SQL Functions :

~ What is SQL function?

~ Why we use SQL function?

~ Types of SQL functions

=> Assignment 11 :

~ Write SQL queries using *AVG()*, *COUNT()*, *FIRST()*, *LAST()*, *MAX()*, *MIN()*, *SUM()* for using student database.

=> SQL Sub queries :

~ What are the SQL subqueries?

~ Types of SQL Subqueries

~ Subquery with Statements

=> Assignment 12 :

~ Write three SQL queries using subqueries for student database.

=> SQL Clauses :

~ What is SQL clauses?

~ Types of SQL clauses

~ Group by clause

~ Having clause

~ Order by clause

=> Assignment 13 :

~ Write three SQL queries using SQL clauses Group by, Having, Order by for student database.

=> SQL Joins :

~ What is SQL Joins?

~ Importance of SQL Joins

~ Types of SQL Joins

~ Inner join with example

~ Left outer join with example

~ Right outer join with example

~ Full outer join with example

=> Assignment 14 :

~ Perform all join operations with subqueries for student database.

=> Other SQL Operations :

~ Create database

~ Drop database

~ Create database table

~ Drop database table

~ Alter operation

~ SQL Constraints

~ SQL Not Null

~ SQL Primary Key

~ SQL Foreign Key

~ SQL Unique

=> Assignment 15 :

~ Create a family tree database using primary key & foreign key and perform all basic operations.

=> SQL Views :

~ What is SQL Views?

~ Why we use it ?

~ Creating Views

~ Dropping views

=> Assignment 16 :

~ Perform SQL view operations for student database.

=> Project Work :

~ Create an SQL database for your school classes, following things, should be included:

- Classes timings

- Class subjects

- Student attendance

- No. of students with their names.

- faculty name with respected subjects

- Write SQL query for extract all students name with their assign subjects.

- Write SQL query for extract all subjects name with their assign faculties name.

- Find out students attendance with their absent and present days using SQL queries.

Web Designing using Wordpress

Topic Name : K12

Sub-topic Name : CLASS9

Course link : <https://ineuron.ai/course/Web-Designing-using-Wordpress>

Course Description :-

If you are interested in building websites, WordPress is what you need to learn and here we introduce website design and creation by utilizing different kinds of themes and templates available in WordPress. Students who complete this course will gain hands-on practical experience in building various interactive and beautiful websites by using WordPress.

Course Features :-

- => Online Instructor-led learning
- => Practical Implementation
- => Integrate academic knowledge with the tech
- => Real-time Project
- => Live Class Recording
- => Doubt Clearing
- => Assignment in all the Module
- => Quiz in every Module
- => Career Counselling
- => Completion Certificate

What you will learn :-

- => Introduction to WordPress
- => WordPress Themes
- => WordPress Plugins
- => WordPress to create Blog
- => Creating site pages using WordPress
- => WordPress Hosting
- => Projects on WordPress

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Shivan Kumar :

~ Associate Data Scientist, Mentor, and Kaggle Master with 2 Years of Experience. Experience in building models that translate data points into business insights. Highly accurate at collecting, analyzing, and interpreting large datasets, developing machine learning, deep learning, Chatbots models, and deploying the solutions on the cloud. I also love to participate in Hackathons. In my free time, I like to mentor students to learn Data Science and achieve their goals.

Curriculum details :-

=> Course Introduction :

- ~ Course Introduction
- ~ Who is this course for?
- ~ Course Overview
- ~ Course Outcome
- ~ What is Web Development?
- ~ Why Web development?
- ~ Web development using Wordpress

=> WordPress Introduction :

- ~ What is WordPress?
- ~ Features of WordPress
- ~ Applications of WordPress

=> Installing WordPress :

- ~ Download WordPress
- ~ Installing in System
- ~ Verifying the Installation
- ~ How to use WordPress?
- ~ General site settings

=> Wordpress Themes :

- ~ *What is Theme?*
- ~ *Select, install and activate a theme*
- ~ *WordPress theme directory*
- ~ *Practical:- Theme customization*

=> Wordpress Plugins :

- ~ *What is Plugins?*
- ~ *Use of Plugins in web development*
- ~ *Installation of Plugins*
- ~ *How to create Plugin files?*
- ~ *Practical:- Play with different different WordPress Plugin*

=> WordPress to Create Blog :

- ~ *What is Blog?*
- ~ *Steps to create blog using WordPress*
- ~ *WordPress blog examples*
- ~ *Career in Blogging*
- ~ *Practical:- Creation of blog using WordPress*

=> Assignment 1: :

- ~ *Write a blog related to your favorite history chapter.*

=> Creating Site Pages using WordPress :

- ~ *What is page in WordPress?*
- ~ *Difference between page and post.*
- ~ *How do WordPress pages work?*
- ~ *WordPress page template*
- ~ *Adding a page*
- ~ *Practical:- Steps to create Pages in WordPress*

=> WordPress Hosting :

- ~ *What is Hosting?*
- ~ *What is Domain?*
- ~ *Why hosting is required?*
- ~ *Difference between Web hosting and WordPress hosting?*

=> Projects :

- ~ *Design your own portfolio using WordPress.*
- ~ *Create a blog using WordPress.*

=> Summary :

- ~ *Course Conclusion*
- ~ *Future Scope of WordPress*

Complete VueJS Development

Topic Name : WEB DEVELOPEMENT

Sub-topic Name : VUE JS

Course link : <https://ineuron.ai/course/Complete-VueJS-Development>

Course Description :-

VueJS is the shooting star in the world of JavaScript frameworks, regardless of whatever measure you choose (Google Trends, Tweets, etc.). This course covers the most recent version of Vue in great depth and from the ground up. In this course, we will go over all of the fundamentals of VueJs. Vue JS and other frontend frameworks are incredibly popular because they provide the same dynamic, fantastic user experience that we have come to expect from mobile applications - but now in the browsers as well. And it is no surprise that positions requiring frontend framework expertise such as VueJS are among the highest-paying in the business!

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => VueJs project structure
- => VueJs data types and methods
- => Passing data to props
- => Adding editable forms in todo
- => Passing methods in vueJs

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

=> Getting Started With VueJS :

- ~ Introduction to Vue JS
- ~ Important note on Vue docs
- ~ Vue web page via CDN
- ~ Injecting Vue on web page
- ~ Another method to add app

=> Basics of VueJS :

- ~ A nice card in Vue
- ~ Directives in VueJS
- ~ Handling Arrays in VueJS
- ~ loops and assignment in VueJS
- ~ Handling Booleans and conditionals in VueJS
- ~ Login and logout in VueJS
- ~ Why people avoid v-show

=> 2 way binding in VueJS :

- ~ Getting the values from html in VUEJS

=> 3 way binding in VueJS :

- ~ Model the data in VueJS

=> 4 way binding in VueJS :

- ~ Computed and methods in VueJS

=> 5 way binding in VueJS :

- ~ Handling computed in VueJS

=> 6 way binding in VueJS :

- ~ Assignment time in VueJS

=> 7 way binding in VueJS :

- ~ Life Cycle hooks in VueJS

=> Moving to Vue cli :

- ~ Vue cli and GUI

- ~ Redo the project in VueJS

- ~ Setup you HTML for counter app

- ~ Counter app and assignment

=> Conditionals in VueJS :

- ~ bulding logics for Rating app

- ~ Finishing up rating app in VueJS

- ~ Word generator project in VueJS

- ~ Word generator methods

- ~ A nasty bug to find in VueJS

=> Components and third part

libraries :

- ~ Adding third party libraries

- ~ Your first component

- ~ Watcher in VueJS

- ~ craft a winning login in tictacToe VueJS

- ~ Making our game functional in VueJS

- ~ Reload the game in Vue JS

=> Handling local storage in

VueJS :

- ~ Building a local storage app in VueJS

- ~ Bring in Moment and UUID

- ~ A reuseable header in Vue JS

- ~ Input form component in VueJS

- ~ Movie card component in VueJS

- ~ Handling local storage in VueJS

- ~ Bring all components together and bug assignment VueJS

- ~ LifeCycle events in action VueJS

=> Handling API in VueJS :

- ~ Introducing the API in VueJS

- ~ Setting up API project in VueJS

- ~ Axios to fire request on web VueJS

- ~ Handling response with check Vuejs

- ~ Testing the response VueJS

- ~ Summing up user card Vue JS

=> Routing and state management :

- ~ A new router app in vuejs

- ~ Basics of routing middleware

- ~ router link in vue js

- ~ All about routing in Vuejs

- ~ Getting started with Github app in vuejs

- ~ Firebase config settings in vue

- ~ Creating lots of files for vue git project

- ~ Store in vuejs

- ~ Signup gitapp in vuejs

- ~ map getters in vuex

- ~ map actions in vuex

- ~ handling user card in vuex

- ~ preparing repo table in vuex

- ~ handling home component with store in vuex

- ~ Auth Guard in vue router

- ~ debugging session

Data Warehouse

Topic Name : BIG DATA

Sub-topic Name : TECH STACK

Course link : <https://ineuron.ai/course/Data-Warehouse>

Course Description :-

A data warehouse is a type of data management system that is designed to enable and support business intelligence (BI) activities, especially analytics. Data warehouses are solely intended to perform queries and analysis and often contain large amounts of historical data.

Course Features :-

- => Self-paced Recording
- => Assignment in all modules
- => Quiz in every module
- => Completion Certificate

What you will learn :-

- => Master the techniques needed to build a data warehouse for your organization
- => Determine your options for the architecture of your data warehousing environment.
- => Apply the key design principles of dimensional data modelling
- => Combine various models and approaches to unify and load data within your data warehouse.

Requirements :-

- => A system with internet connection
- => Your dedication
- => Interest to learn

Instructors :-

- => MD Imran :
 - ~ *Working as Data Scientist with experience in solving real world business problems across different domains.*

Curriculum details :-

- => What is data warehouse :
 - ~ *Course overview Preview*
 - ~ *What is data warehousing Preview*
 - ~ *History of datawarehouse*
 - ~ *How datawarehouse works*
 - ~ *Types of data warehouse*
 - ~ *General stages of data warehouse*
 - ~ *Components of data warehouse*
 - ~ *What is data warehouse used for*
 - ~ *data warehouse implementation*
 - ~ *data warehouse tools*
- => database vs data warehouse :
 - ~ *Key differences*
 - ~ *characteristics*
 - ~ *Difference between database and warehouse*
 - ~ *Application of database*
 - ~ *Application of data warehousing*
- => Data Warehouse Architecture :
 - ~ *Characteristics of Data Warehouse*
 - ~ *Data warehouse architecture*
 - ~ *Data Warehouse Components*
 - ~ *Main types of datawarehouse*
- => What is ETL :
 - ~ *what is ETL Preview*
 - ~ *ETL Process in Data warehouses*
- => ETL vs ELT :
 - ~ *Difference between ETL and ELT*

Scratch Programming for kids

Topic Name : K12

Sub-topic Name : CLASS8

Course link : <https://ineuron.ai/course/Scratch-Programming-for-kids>

Course Description :-

This course will provide learners with a strong knowledge of basic programming concepts without writing code. Scratch is a computer programming language that allows creating interactive stories, games, and animations and sharing them online straight forward and exciting. Students will receive hands-on practical experience in basic game creation after successfully completing the course.

Course Features :-

- => Online Instructor-led learning
- => Practical Implementation
- => Integrate academic knowledge with the tech
- => Real-time Project
- => Live Class Recording
- => Doubt Clearing
- => Assignment in all the Module
- => Quiz in every Module
- => Career Counselling
- => Completion Certificate

What you will learn :-

- => Introduction to programming
- => Working with sprites
- => Scratch components
- => Scratch Motion block
- => Scratch Looks block
- => Scratch Sound block
- => Scratch Control block
- => Scratch Sensing block
- => Scratch Operators
- => Scratch Variables

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Curriculum details :-

- => Introduction to Scratch Programming :
 - ~ Course Introduction
 - ~ Who is this course for?
 - ~ Course Overview
 - ~ Course Outcome
 - ~ Why start with Scratch programming?
 - ~ Sprites vs Images
 - ~ Block Categories
- => Scratch Components :
 - ~ Variables
 - ~ Datatypes
 - ~ Keywords
 - ~ Conditional Statements
 - ~ Control Flow
- => Scratch Motion Block :
 - ~ Move tag
 - ~ Turn tag
 - ~ Go to tag
 - ~ Glide tag
- => Assignment 1 :
 - ~ Set x and y to (10, 100) and glide 5 seconds to random position.

=> Scratch Looks Block :

- ~ Say tag
- ~ Think tag
- ~ Various costume tags
- ~ Backdrop tag

=> Assignment 2 :

- ~ Make a new costume for sprite and make it change using next costume block

=> Scratch Sound Block :

- ~ Play sound
- ~ Start sound
- ~ Stop sound
- ~ Change pitch

=> Assignment 3 :

- ~ Make sprite walk 10 steps in the right direction and make a pop sound at the end.

=> Scratch Events Block :

- ~ Backdrop events
- ~ Broadcast events
- ~ Loudness events

=> Assignment 4 :

- ~ Use 'when this sprite clicked block and say hello after 1 second

=> Scratch Control Block :

- ~ Wait control tag
- ~ Repeat control tag
- ~ Forever control tag

=> Assignment 5 :

- ~ Make a sprite rotate forever using control flow

=> Scratch Sensing Block :

- ~ Touching sensing tag
- ~ Touching colour sensing tag
- ~ Distance sensing tag
- ~ Set drag mode

=> Assignment 6 :

- ~ Use the mouse x and mouse y of sense block and let the sprite say the coordinates

=> Scratch Operators Block :

- ~ Arithmetic operators
- ~ Comparison operators
- ~ and, or, not operations

=> Assignment 7 :

- ~ Pick a random number from 1 to 100 and let sprite say true if its greater than 50 otherwise false

=> Scratch Variables Block :

- ~ Set variable
- ~ Change variable
- ~ Show variable
- ~ Hide variable

=> Assignment 8 :

- ~ Set my variable value using a random operator and check if the variable is greater than 50. Let sprite say the output.

=> Conclusion :

- ~ Scratch in a nutshell
- ~ Various applications work in Scratch

Auto Sklearn and Auto TimeSeries

Topic Name : DATA SCIENCE

Sub-topic Name : MACHINE LEARNING

Course link : <https://ineuron.ai/course/Auto-Sklearn-and-Auto-TimeSeries>

Course Description :-

This course will help you to get started with the machine learning libraries auto sklearn and auto timeseries.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Auto Sklearn
- => Auto Timeseries

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Rishav Dash :

~ This is Rishav Dash. I am a Jr. Data Scientist and mentor at INeuron.ai with working experience in computer vision, natural language processing, Machine Learning, and Alops. Hands-on experience leveraging machine learning, deep learning, transfer learning models to challenging real-world problems, and building products to solve peoples problems.

Curriculum details :-

=> Auto Sklearn :

- ~ What is Auto-Sklearn
- ~ Install and Using Auto-Sklearn
- ~ Auto-Sklearn for Classification
- ~ Auto-Sklearn for Regression
- ~ Advanced Examples
- ~ The END

=> Auto Timeseries :

- ~ What is auto-ts
- ~ Setup and installation auto ts
- ~ Auto-ts implementation
- ~ The END

AWS Big Data Analytics

Topic Name : BIG DATA

Sub-topic Name : BIG DATA ON CLOUD

Course link : <https://ineuron.ai/course/AWS-Big-Data-Analytics>

Course Description :-

This course will help you to get started with the fundamentals of Big Data in AWS Cloud and using other services for data analysis.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Introduction
- => Collection
- => Storage
- => Processing
- => Analysis
- => Visualization
- => Kinesis Scaling
- => SQS Overview
- => Direct Connect
- => S3 Overview
- => DynamoDB Overview
- => Lambda Overview
- => Hdfs vs S3

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

- => MD Imran :
 - ~ Working as Data Scientist with experience in solving real world business problems across different domains.

Curriculum details :-

- => Introduction :
 - ~ Course Overview
 - ~ Introducing our Hands-On Case Study
- => Section 1 : Collection :
 - ~ Collection Section Introduction
 - ~ Collection
 - ~ Kinesis Data Streams Overview
 - ~ Hot shard
 - ~ Kinesis Producers
 - ~ Kinesis Consumers
 - ~ Kinesis Enhanced Fan Out
 - ~ Kinesis Scaling
 - ~ Kinesis - Handling Duplicate Records part 1
 - ~ Kinesis - Handling Duplicate Records part 2
 - ~ Kinesis Security
 - ~ Kinesis Data Firehose
 - ~ CloudWatch Subscription Filters with Kinesis
 - ~ [Exercise] Kinesis Firehose, Part 1
 - ~ [Exercise] Kinesis Firehose, Part 2
 - ~ [Exercise] Kinesis Firehose, Part 3
 - ~ [Exercise] Kinesis Data Streams

- ~ SQS Hands On
- ~ SQS Overview
- ~ Kinesis Data Streams vs SQS
- ~ IoT Overview
- ~ IoT Components Deep Dive
- ~ Database Migration Service (DMS)
- ~ Direct Connect
- ~ AWS Snow Family Overview
- ~ AWS Snow Family Hands On
- ~ MSK Managed Streaming for Apache Kafka
- ~ Kinesis vs MSK

=> Section 2 : Storage :

- ~ S3 Overview
- ~ S3 Hands On
- ~ S3 Security Bucket Policy
- ~ S3 Security Bucket Policy Hands On
- ~ S3 Website Overview
- ~ S3 Website Hands On
- ~ S3 Overview
- ~ S3 Versioning Hands On
- ~ S3 Server Access Logging
- ~ S3 Server Access Logging Hands On
- ~ S3 Replication Overview
- ~ S3 Replication Hands On
- ~ S3 Storage Classes Overview
- ~ S3 Storage Classes Hands On
- ~ S3 Glacier Vault Lock & S3 Object Lock
- ~ S3 Encryption
- ~ Shared Responsibility Model for S3
- ~ DynamoDB Overview
- ~ DynamoDB RCU & WCU
- ~ DynamoDB Partitions
- ~ dynamodb api
- ~ DynamoDB Indexes LSI & GSI
- ~ DynamoDB DAX
- ~ DynamoDB Streams
- ~ DynamoDB TTL part 1
- ~ DynamoDB TTL part 2
- ~ DynamoDB Security
- ~ DynamoDB Storing Large Objects
- ~ [Exercise] DynamoDB

=> Section 3 : Processing :

- ~ Section Introduction Processing
- ~ Lambda Overview
- ~ Lambda Hands On
- ~ [Exercise] AWS Lambda
- ~ Why Cloud & Big Data on Cloud
- ~ What is Virtual Machine
- ~ On-Premise vs Cloud Setup
- ~ Major Vendors of Hadoop Distribution
- ~ Hdfs vs S3
- ~ Important Instances in AWS
- ~ Spark Basics
- ~ Why spark is difficult
- ~ Overview of EMR part 1
- ~ Overview of EMR part 2
- ~ What is EMR
- ~ Tez vs mapreduce
- ~ Launching an emr cluster
- ~ connecting to your cluster
- ~ Create a tunnel for web ui
- ~ Use Hue to interact with EMR
- ~ Part 1 analyze movie ratings with hive on emr
- ~ Part 2 analyze movie ratings with hive on emr
- ~ Transient vs Long Running Cluster Running
- ~ Copy File From S3 to Local Zeppelin Notebook
- ~ How to Create a VM
- ~ S3 & EBS
- ~ Public ip Vs Private Ip
- ~ Aws Command Line Interface
- ~ AWS Glue
- ~ Introduction to Amazon Redshift
- ~ Redshift Master Slave Architecture
- ~ Redshift demo
- ~ redshift spectrum
- ~ Redshift Distribution Styles
- ~ Redshift Fault Tolerance
- ~ Redshift Sort Keys
- ~ [Exercise] Elastic MapReduce, Part 1
- ~ [Exercise] Elastic MapReduce, Part 2

=> Section 4 : Analysis :

- ~ Section Introduction Analysis
- ~ Intro to Kinesis Analytics
- ~ Kinesis Analytics Costs RANDOM_CUT_FOREST
- ~ [Exercise] Kinesis Analytics, Part 1
- ~ [Exercise] Kinesis Analytics, Part 2

- ~ Kinesis Analytics, Part 3
- ~ Kinesis Firehose, Part 4
- ~ Intro to Opensearch (formerly Elasticsearch)
- ~ Amazon Opensearch Service
- ~ Opensearch Features
- ~ [Exercise] Amazon Opensearch Service
- ~ What is Athena
- ~ When do we require Athena What problem Athena Solve How Athena Works
- ~ Athena Pricing
- ~ Athena Practical Demonstration
- ~ [Exercise] AWS Glue and Athena
- ~ [Exercise] Redshift Spectrum, Pt 1
- ~ [Exercise] Redshift Spectrum, Pt 2
- ~ [Exercise] Redshift Spectrum, Pt 3

=> Section 6 : Visualization :

- ~ The course overview
- ~ Big data analytics and aws
- ~ How Quicksight is different than other BI Tools
- ~ BI solution based on quicksight
- ~ how to get started with quicksight
- ~ Performance Your first analysis
- ~ AWS Big data ecosystem
- ~ importing files to quicksight
- ~ importing databases to quicksight part 1
- ~ importing databases to quicksight part 2
- ~ importing data from saas services to quicksight
- ~ edit existing data sources in quicksight
- ~ Joining datasets
- ~ using functions part 1
- ~ using functions part 2
- ~ applying filters
- ~ understanding spice layer
- ~ Creating a Quicksight Analysis
- ~ Explore various charting options
- ~ Exploring various Map options
- ~ Exploring various table and other visual options
- ~ Mini project Overview
- ~ Mini Project Architecture
- ~ Data ingestion for mini project
- ~ Reports and dashboards

Latex

Topic Name : PROGRAMMING

Sub-topic Name : LATEX

Course link : <https://ineuron.ai/course/Latex>

Course Description :-

LaTeX is a document preparation system that is widely used in many scientific domains, including mathematics, statistics, computer science, engineering, chemistry, physics, economics, and linguistics. This is the place to start if you've never used LaTeX before or if it's been a while and you need a refresher. This course will get you started writing LaTeX right away with interactive exercises that you may complete online instead of downloading and installing LaTeX on your own computer.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Latex Online Environment
- => Mathematical equation and algorithms
- => Figures and Tables
- => Beamer

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

=> Manjunatha A :

~ Data Scientist with good experience in machine learning, deep learning, and Python programming. I was awarded the Gold medal in my Master's (MCA). I was also privileged to be honour with the Ace of innovation award. I was also one of the Finalists of SIH -2020 the world's largest hackathon. In my spare time, I enjoy sharing my technological abilities and knowledge through classes. I supervised over 500 students and assisted them in establishing careers in their industries. I also travel frequently.

Curriculum details :-

=> Introduction to Latex :

- ~ Course Introduction
- ~ Course Curriculum Overview
- ~ Course Outcome
- ~ Key Features of Latex

=> Setup and Installation :

- ~ Latex Environment setup
- ~ MikTex Installation
- ~ TexStudio Installation

=> Latex Online Environment :

- ~ Introduction to Latex online editor
- ~ Exploring Overleaf dashboard
- ~ First project creation in Overleaf

=> Latex Basics :

- ~ Introduction to Latex
- ~ Exploring Latex Dashboard
- ~ Latex commands and file structure
- ~ First project creation in Latex
- ~ Text Formatting in Latex
- ~ Lists in Latex
- ~ Installing missing packages

=> Mathematical equation and algorithms :

- ~ Latex Mathematical notations
- ~ Mathematical symbols in Latex
- ~ Mathematical equations
- ~ Arithmetic, subscript and accent

- ~ *Binomial, Integration and delimiter*
- ~ *Simple, annotate and case equations*
- ~ *Summation, product and matrices*
- ~ *Algorithm and pseudocode*
- ~ *Algorithm and pseudocode practical demonstration*
- ~ *Conditional statement*
- ~ *Loops(For,While)*

=> **Figures and Tables :**

- ~ *Representing image*
- ~ *Accessing image with different sources*
- ~ *Introduction to Table and Table creation*
- ~ *Table alignment and centering*
- ~ *Complex table*
- ~ *Table creation using TexStudio*

=> **Bibliography :**

- ~ *Introduction to Bibliography*
- ~ *Bibliography styles*

=> **Beamer :**

- ~ *Introduction to Beamer*
- ~ *Beamer Title creation*
- ~ *Create and organize frames*
- ~ *Beamer Table of contents*
- ~ *Formatting Text in beamer*
- ~ *Effects in presentation*
- ~ *Themes in Beamer*

=> **Scientific Report Writing using Templates :**

- ~ *Research paper templates*
- ~ *Splitting document into multiple files*

=> **CV and Poster creation :**

- ~ *Overleaf CV and poster creation*

Digital Marketing Foundation

Topic Name : DIGITAL MARKETING

Sub-topic Name : DIGITAL MARKETING MASTERS

Course link : <https://ineuron.ai/course/Digital-Marketing-Foundation>

Course Description :-

Grow your digital marketing results faster through the power of growth hacking! In this industry-leading course, you'll discover the extraordinary benefits of digital metrics, including lean analytics, web traffic, digital conversion funnels, and LTV and CAC calculations.

Course Features :-

- => Course for pre launch business owners who have no idea where to get started
- => For starting a freelancing techniques in Marketing field

What you will learn :-

- => From Scratch grow business online
- => Work from home as a Freelancer Marketer
- => Make money as an Affiliate Marketer

Requirements :-

- => No Experience required
- => Computer with Internet connectivity
- => Basic Programming understanding

Curriculum details :-

- => Digital Marketing Class 1 - Introduction to Digital Marketing :
~ Introduction Preview
- => Digital Marketing Class 2 - Basics of Websites, Selecting Domain, and Activating Free Hosting
- => Digital Marketing Class 3 - Plugins and Integrations (Part - 1)
- => Digital Marketing Class 4 - Plugins and Integrations (Part - 2)
- => Digital Marketing Third Party Website Integrations Google and Bing
- => Digital Marketing - Market Research - With No Tools
- => Digital Marketing 6.2 - Market Research - No Tools
- => Digital Marketing Class 7.1 - Introduction to SEO and Basic Research
- => Digital Marketing Class 7.2 - Research With Free Tools - Google Trends
- => Digital Marketing 8 1 Free Tool
- => Digital Marketing Class 8.2 - Paid Tools
- => Digital Marketing Class 9.1 - Intro to Google Analytics
- => Digital Marketing Class 9.2 - All Tabs of Google Analytics
- => Digital Marketing Class 10.1 - Goals, Reports, Dashboard
- => Digital Marketing Class 10.2 - Search Console
- => Digital Marketing Class 11.1 - Website Optimization Tools
- => Digital Marketing Class 11.2 - Email Marketing
- => Digital Marketing Conclusion

ONNX

Topic Name : DATA SCIENCE

Sub-topic Name : DEEP LEARNING

Course link : <https://ineuron.ai/course/ONNX>

Course Description :-

The Open Neural Network Exchange (ONNX) is a free ecosystem that allows AI developers to select the best tools for their projects as they progress. ONNX is a free, open-source format for AI models, including deep learning and classical machine learning.

Course Features :-

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What you will learn :-

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Requirements :-

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Instructors :-

=> Boktiar Ahmed Bappy :

~ This is Bappy. I aim for simplicity in Data Science. Real Creativity won't make things more complex. Instead, I will simplify them, Interested in a Data Science Career and so develop myself accordingly. Data Scientist and lecturer with working experience in Machine Learning, Deep Learning, Microcontrollers and Electronics systems. Hands-on experience in classification, regression, clustering, computer vision, natural language processing and transfer learning models to solve challenging business problems. I have a huge interest in Robotics. I have innovated a lot of innovations, ideas, projects & robots and got a lot of achievements.

Curriculum details :-

=> ONNX :

- ~ Introduction of ONNX Preview
- ~ Challenges with Deep Learning
- ~ Open Neural Network Exchange
- ~ ONNX design principles
- ~ ONNX File Format
- ~ ONNX Data Types
- ~ Machine Learning demo
- ~ ONNX Runtime Preview
- ~ ONNX model zoo
- ~ ONNX - Model zoo demo
- ~ Pytorch to TensorFlow example

Pro Aptitude - Data Structures and Algorithms

Topic Name : APTITUDE

Sub-topic Name : APTITUDE

Course link : <https://ineuron.ai/course/Pro-Aptitude---Data-Structures-and-Algorithms>

Course Description :-

This course is designed mostly for Data structure and Algorithms test takers.

Course Features :-

=> Quizzes

=> Course completion certificate

What you will learn :-

=> DSA Theoretical Test

=> DSA Practical Test

Requirements :-

=> System with minimum i3 processor or better

=> At least 4 GB of RAM

=> Working internet connection

=> Dedication to solve

Curriculum details :-

=> Data structure and Algorithms Test :

~ *DSA Test 1*

~ *DSA Test 2*

~ *DSA Test 3*

~ *DSA Test 4*

Live Virtual Interview

Topic Name : DATA SCIENCE

Sub-topic Name : MACHINE LEARNING INTERVIEW

Course link : <https://ineuron.ai/course/Live-Virtual-Interview>

Course Description :-

Interview for Freshers, experienced, not ID domain candidate

Course Features :-

=> Lifetime Dashboard

=> Free Course

=> Interview Questions

What you will learn :-

=> How to prepare for Interview

Requirements :-

=> no prerequisite

Instructors :-

=> krish naik :

~ Having 10+ years of experience in Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

=> Sudhanshu Kumar :

~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

=> Live- Data Science Virtual Interview By Krish And Sudhanshu-Part 1 :

~ Virtual interview Preview

=> Live Virtual Interview For Data Science By Krish And Sudhanshu Part 2

=> Live Virtual Interview For Internship For College Student By Krish And Sudhanshu

=> Live Virtual Interview For Data Science By Krish And Sudhanshu

=> Live Transition Story Of Civil Engineer To Data Scientist With 2 Years Gap

=> Live Virtual Nervous Interview Of Mechanical Engineer For Data Science

=> Live Data Science Q&A With Krish And Sudhanshu- Give Away ML for Deployment+Internships For Women

=> Live Interview Of Lakshay For Data Science- Commerce And Statistics Background

=> Live Virtual Interview For Data Science From Teaching Assistant To Data Scientist

=> Live Virtual Interview For Data Science- Background Applied Geology From IIT Kharagpur

=> Live -Virtual Interview Of Fresher For Data Science - Session 6

GCP Projects

Topic Name : CLOUD

Sub-topic Name : GCP PROJECT

Course link : <https://ineuron.ai/course/GCP-Projects>

Course Description :-

GCP is one of the most used and fastest-growing cloud platforms in the cloud industry currently. This course will get hands-on experience in building and implementing various real-time ML, DL & NLP-based projects with GCP cloud services.

Course Features :-

- => Real-time project implementation
- => Quizzes
- => Assignment problems
- => Downloadable resources
- => Completion certificate

What you will learn :-

- => GCP IAM and Security
- => GCP Storage & Database Services
- => GCP Management Tools
- => GCP AI Stack
- => Real-time Project implementation on ML, DL & NLP

Requirements :-

- => Prior Understanding of GCP
- => GCP Account
- => Prior understanding of ML, DL and NLP
- => A System with a decent internet connection
- => Your dedication

Instructors :-

=> Khushali Shah :

~ A data scientist having rich experience working with MNCs and start-ups in the field of data science and machine learning. She has expertise in Chatbot development for various domains & been developing professionally for 6+ years with diverse job history. She also had positions in software module development, web app development, functional designs, requirement gathering, client interaction, and server setup/admin & can help everywhere in the stack; she loves wearing multiple hats to an extent. She also believes in enhancing her skills by training and learning new things day by day.

Curriculum details :-

=> Projects :

- ~ Guest Book Project Preview
- ~ Overview Preview
- ~ Vertex AI image classification
- ~ Custom image classification
- ~ Install SDK
- ~ authenticating user
- ~ training
- ~ user_message

Complete Backend development with Nodejs

Topic Name : WEB DEVELOPEMENT

Sub-topic Name : NODE JS

Course link : <https://ineuron.ai/course/Complete-Backend-development-with-Nodejs>

Course Description :-

Javascript is being used for much more than it originally intended. All backend work may now be done through javascript. In this course, we will learn how to use current javascript to develop comprehensive backend code. To begin, we'll use VSCode to set up some tools. Then we'll learn how to build our own web server without using any third-party modules. After that, we'll learn express. We will also learn how to send web-based and JSON-based responses. We'll go into body parser, middleware, and templating in more detail later.

Course Features :-

- => Course material
- => Course resources
- => On-demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Javascript
- => ES6
- => Web servers
- => Express Js
- => Body parsers
- => Middlewares
- => View Engines
- => Multer
- => Passport JS
- => Big Stack
- => MongoDB integration with Node JS

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

=> Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

=> Introduction to NodeJS course :

- ~ Tools to be downloaded
- ~ Setting up VSCode and reading docs
- ~ Our very first project - web server Preview
- ~ How to get exercise files

=> A web server - Manual work and reading docs :

- ~ Reading Docs for next project
- ~ Configuration for html js and css files Preview
- ~ Finding the file on the server
- ~ Handling server error response
- ~ Finishing up node server project

=> Learn Express :

- ~ What is ExpressJs and templating Preview
- ~ Installing express and detail about package file

- ~ *Creating routes using express*
- ~ *Get Post and Delete requests - Postman*
- ~ *Routing in express*
- ~ *Server response and status code*

=> Body parser, middleware and view engines :

- ~ *What is a middleware*
- ~ *Applying bodyparser with express*
- ~ *Serving static files and form data*
- ~ *Using template engine*

=> Multer - Upload a user profile photo :

- ~ *Overview of multer and documentation*
- ~ *Setting up multer*
- ~ *configuring multer for uploads*
- ~ *Change profile pic using multer*

=> PassportJS - Facebook Authentication :

- ~ *Authentication in nodeJs*
- ~ *Setting up facebook app*
- ~ *Installing dependencies*
- ~ *Create all views*
- ~ *Configuring middleware*
- ~ *Configuring our routes*
- ~ *http and https problem in facebook auth*
- ~ *A demo on Heroku - Not a heroku tutorial Preview*

=> Moving to Big Stack Project :

- ~ *Why we are using MongoDB*
- ~ *Setting up an Amazon instance using Mlab*
- ~ *Take time and read these npm docs*
- ~ *Design scalable folder structure*
- ~ *Creating home route and setup*

=> Move to MongoDB :

- ~ *Connect your project with mongoDB*
- ~ *Creating auth API and a challenge*
- ~ *Solution of challenge*
- ~ *Creating a person schema*
- ~ *Our first query in MongoDB*
- ~ *Creating new object from Mongo model*
- ~ *Generating salt and hash to save password*
- ~ *Using postman for testing*

=> Bigstack Major Project - login routes and tokens :

- ~ *Setting up login route*
- ~ *Validation of password in login route Preview*
- ~ *Creating a Strategy using Passport*
- ~ *Creating tokens with information*
- ~ *Fixing errors and profile route*

=> Bigstack Major Project Working on User Profile :

- ~ *Creating model for UserProfile*
- ~ *Creating route for profile*
- ~ *Collecting user profile values*
- ~ *Update the profile values and save them*
- ~ *Debugging routes part 1*
- ~ *Debugging application - part 2*

=> Bigstack Major Project Unique Username and other routes :

- ~ *Unique username and url based access*
- ~ *Getting all users from database*
- ~ *Deleting a user from database*
- ~ *Workrole - Pushing array in database*
- ~ *Testing array based routes*
- ~ *Writing and testing delete route in array*

=> Bigstack Major Project - Questions and Upvotes :

- ~ *Question Model - Challenge*
- ~ *Creating question model*
- ~ *Creating post question routes and debugging*
- ~ *How to take help from stackoverflow and get route*
- ~ *Posting answers for questions*
- ~ *Upvotes routes and some assignments*

DSAR

Topic Name : DATA SCIENCE

Sub-topic Name : MACHINE LEARNING INTERVIEW

Course link : <https://ineuron.ai/course/DSAR>

Course Description :-

DSAR for Beginners and Intermediate

Course Features :-

- => Lifetime Dashboard
- => Free Course
- => Certificate
- => Assignment
- => Quiz

What you will learn :-

- => Business Strategies
- => Data Science Architecture of various domain
- => Project Architecture
- => Project Pipeline

Requirements :-

- => Computer with Internet connectivity
- => Basic business understanding

Instructors :-

=> Sudhanshu Kumar :

~ Having 8+ years of experience in Big data, Data Science and Analytics with product architecture design and delivery. Worked in various product and service based Company. Having an experience of 5+ years in educating people and helping them to make a career transition.

Curriculum details :-

- => Supply chain domain various problem and best AI solution design :
 - ~ Conceptual Architecture Preview
- => Retail industry various problem and best AI solution design
- => Healthcare industry problem and its solution design
- => Security and surveillance industry problem and its solution design
- => Insurance industry problem and its solution design
- => Banking industry problem and its solution design
- => Telecom industry problem and its solution design
- => Oil and Gas various problem and best AI solution design
- => Transport various problem and best AI solution design

Snowflake Advanced

Topic Name : BIG DATA

Sub-topic Name : TECH STACK

Course link : <https://ineuron.ai/course/Snowflake-Advanced>

Course Description :-

This course will help you to learn the advanced concepts of Snowflake.

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Loading Data
- => Copy Options
- => Loading unstructured data
- => Performance optimization
- => Loading from AWS
- => Loading from Azure
- => Loading from GCP
- => Snowpipe
- => Time Travel
- => Fail Safe

Requirements :-

- => System with Internet Connection
- => Interest to learn
- => Dedication

Instructors :-

- => MD Imran :
 - ~ Working as Data Scientist with experience in solving real world business problems across different domains.

Curriculum details :-

- => Loading Data :
 - ~ Loading Methods
 - ~ Understanding Stages
 - ~ Creating stage
 - ~ Copy command
 - ~ Transforming Data
 - ~ More Transformations
 - ~ Copy options and ON_ERROR
 - ~ File format object
 - ~ Summary
- => Copy Options :
 - ~ Understanding copy options
 - ~ Validation_mode
 - ~ Working with rejected records
 - ~ size_limit
 - ~ return_failed_only
 - ~ Truncatecolumns
 - ~ Force
 - ~ Load history
- => Loading unstructured data :
 - ~ High level steps
 - ~ our data
 - ~ Creating stage and raw file
 - ~ Parsing JSON
 - ~ Handling nested data

- ~ Dealing with hierarchy
- ~ Insert final data
- ~ Querying Parquet data
- ~ Loading Parquet data

=> Performance optimization :

- ~ Performance in Snowflake
- ~ Create dedicated virtual warehouse
- ~ Implement dedicated virtual warehouse
- ~ Scaling up
- ~ Scaling out
- ~ Caching
- ~ Maximize Caching
- ~ Clustering
- ~ Clustering Demo

=> Loading from AWS :

- ~ Sign up for free trial
- ~ Creating S3 bucket
- ~ Upload files in S3
- ~ Creating policy
- ~ Creating integration object
- ~ Loading from S3 part 1
- ~ Loading from S3 part 2
- ~ Loading from S3 part 3

=> Loading from Azure :

- ~ Sign up for free trial
- ~ Create a storage account
- ~ Create a Container
- ~ Create integration object
- ~ Create stage object
- ~ Load CSV file
- ~ Load JSON file

=> Loading from GCP :

- ~ Create a bucket
- ~ Create integration object
- ~ Create stage
- ~ Query and load data

=> Snowpipe :

- ~ What is Snowpipe
- ~ High level steps
- ~ Creating Stage
- ~ Creating pipe
- ~ Configure pipe and notifications
- ~ Error handling
- ~ Manage pipes

=> Time Travel :

- ~ Using time travel
- ~ Restoring data
- ~ UNDROP tables
- ~ Retention time
- ~ Time travel cost

=> Fail Safe :

- ~ Understanding Fail Safe
- ~ Fail Safe Storage

Class 7th Physics

Topic Name : K12

Sub-topic Name : CLASS7

Course link : <https://ineuron.ai/course/Class-7th-Physics>

Course Description :-

The Science Syllabus is elegantly designed such that it introduces the basic concepts of Science and its importance in our daily life. It will make the foundation strong for the higher classes. The Physics section focuses on various concepts related to Heat, Winds, Storms, Cyclones, Electric current, etc.

Course Features :-

=> Self Paced Videos

What you will learn :-

=> Light

=> Motion and Time

=> Wind Storm and Cyclone

=> Heat

=> Electric Current And its Effect

Requirements :-

=> System with Internet Connection

=> Interest to learn

=> Dedication

Instructors :-

=> Jawala Prakash :

~

Curriculum details :-

=> Light :

- ~ Lecture 1 : Introduction Preview
- ~ Lecture 2 : What is Light, Rectilinear Propagation of Light, Image Formation Preview
- ~ Lecture 3 : Image Formation in Plane Mirror and Spherical Mirror
- ~ Lecture 4 : Lenses, Concave and Convex Lens, Image formation in Concave and Convex Lens
- ~ Lecture 5 : Sunlight, Newton's Disc

=> Motion and Time :

- ~ Lecture 1 : Introduction Preview
- ~ Lecture 2 : Different Types of Motion Preview
- ~ Lecture 3 : Speed
- ~ Lecture 4 : Uniform and Non Uniform Motion Periodic Motion Simple Pendulum
- ~ Lecture 5 : Distance Time Graph

=> Wind Storm And Cyclone :

- ~ Lecture 1 : Introduction
- ~ Lecture 2 : Air Exerts Pressure
- ~ Lecture 3 : Understanding How Winds are Produced
- ~ Lecture 4 : Thunderstorm and Cyclone

=> Heat :

- ~ Lecture 1 : Introduction
- ~ Lecture 2 : Hot and Cold, Temperature
- ~ Lecture 3 : Reading a Thermometer, Clinical and Laboratory Thermometer
- ~ Lecture 4 : Conduction Convection and Radiation
- ~ Lecture 5 : Land Breeze and
- ~ Lecture 6 : Types of Clothes we Wear in Summer and Winter
- ~ Lecture 7 : NCERT Question Discussion

=> Electric Current and Its Effect :

- ~ Lecture 1 : Introduction
- ~ Lecture 2 : Electric Circuit, Symbols of Electric Components, Circuit Diagram
- ~ Lecture 3 : Heating Effect of Electric Current Fuse
- ~ Lecture 4 : Electric Bell
- ~ Lecture 5 : NCERT Question Discussion

Data Structures and Algorithms Live Class

Topic Name : DATA STRUCTURE

Sub-topic Name : DSA MASTERS

Course link : <https://ineuron.ai/course/Data-Structures-and-Algorithms-Live-Class>

Course Description :-

The Data Structure and Algorithm program focused on learning algorithmic strategies for addressing a myriad of challenges while having complete control of memory and time. Develop a thorough understanding of how data structures work and how to create efficient algorithms.

Course Features :-

- => Online live classes
- => Doubt Clearing
- => Live-Class Recording
- => Real-time Project
- => Assignment in all modules
- => Quiz in every module
- => Career Counselling
- => Completion Certificate

What you will learn :-

- => Problem solving
- => Analytical skill
- => Design Solution
- => Architecture design
- => Answer Confidently in interview.
- => Upscale your skill as a Developer.

Requirements :-

- => Understanding of python programming language
- => A system with a decent internet connection
- => Your dedication

Instructors :-

=> Priya Bhatia :

~ Expertise in data structure competitive programming and solving analytical problems and implementing data structure algorithm in multiple programming language. I have done my M.Tech in Artificial Intelligence at IIT Hyderabad and have an experience of implementation in multiple projects.

Curriculum details :-

=> INTRODUCTION :

~ Course Overview

=> ANALYSIS IN ALGORITHMS :

- ~ Introduction to Algorithms
- ~ Analyzing Algorithms
- ~ Asymptotic Notations - Big O, Theta and Omega Notations

=> RECURRENCE RELATION :

- ~ Introduction to Recurrence Relation Solving
- ~ Substitution Method - Problem 1
- ~ Substitution Method - Problem 2
- ~ Substitution Method - Problem 3
- ~ Substitution Method - Problem 4
- ~ Recursive Tree Method - Problem 1
- ~ Recursive Tree Method - Problem 2
- ~ Recursive Tree Method - Problem 3
- ~ Master's Theorem - Case 1
- ~ Master's Theorem - Case 2
- ~ Master's Theorem - Case 3

=> ARRAY DATA STRUCTURE :

- ~ Introduction to Arrays
- ~ One Dimensional Array - How to find the address of an Element
- ~ Two Dimensional Array - Row major order and column major order
- ~ Searching Algorithm - Linear search in an Array
- ~ Comparison Sort in an Array - Selection sort
- ~ Comparison Sort in an Array - Bubble sort

- ~ Comparison Sort in an Array - Insertion sort
- ~ Non-Comparison Sort in an Array - Count sort
- ~ Non-Comparison Sort in an Array - Radix sort
- ~ Non-Comparison Sort in an Array - Bucket sort
- ~ Interview-Based Problem Statement - Missing Number in an array
- ~ Solution Discussed - Missing Number in an array
- ~ Interview-Based Problem Statement and Brute Force Approach - Divide two Integer without division operator
- ~ Solution Discussed - Optimised Approach with Complexity Analysis

=> DIVIDE AND CONQUER :

- ~ Introduction to Divide and Conquer

=> DISCUSSIONS OF APPLICATIONS AND CONQUER :

- ~ Binary Search in an Array
- ~ Coding Implementation of Binary Search
- ~ Finding of Power of an Element
- ~ Coding Implementation of Power Of an Element
- ~ Inplace and Outplace Sorting Algorithm
- ~ Merge Sort Recursive Tree
- ~ Merge Sort Recursive Tree Continue
- ~ Max and Min Comparison in Merge Procedure
- ~ Code Implementation of Merge Sort
- ~ Finding of Maxima and Minima
- ~ Strassen's Matrix Multiplication
- ~ Finding Of Number of Inversions

=> QUICKSORT :

- ~ Introduction To QuickSort
- ~ Partition Algorithm in QuickSort
- ~ Psuedo Implementation of QuickSort
- ~ Recurrence Relation Analysis with time complexity finding
- ~ Coding Implementation of QuickSort Algorithm
- ~ Problem 1 Based on QuickSort Algorithm
- ~ Solution 1 Based on QuickSort Algorithm
- ~ Problem 2 Based on QuickSort Algorithm
- ~ Solution 2 Based on QuickSort Algorithm
- ~ Randomized QuickSort Algorithm

=> SELECTION PROCEDURE :

- ~ Introduction To Selection Procedure and Pseudocode
- ~ Recurrence Relation Analysis with time complexity finding Of Selection Procedure
- ~ Code Implementation of Selection Procedure

=> LINKED LIST :

- ~ Introduction to Linked List
- ~ Insertion of Node(Beginning and End Position) in Linked List
- ~ Insertion of Node(Any Position) in Linked List
- ~ Deletion of Node in Linked List
- ~ Searching of Node from Linked List
- ~ Reversal of Nodes in Linked List
- ~ Floyd's Cycle Detection Algorithm
- ~ Doubly Linked List
- ~ Circular Linked List

=> SKIP LIST(ADVANCE DSA) :

- ~ Introduction to Skip List
- ~ Build-in Skip List
- ~ Search in Skip List
- ~ Insertion in Skip List
- ~ Deletion in Skip List
- ~ Complexity Analysis

=> STACK AND QUEUE DATA STRUCTURE :

- ~ Introduction to Stack and Queue Data Structure
- ~ Implementation of Stack and Queue using Array in Python
- ~ Implementation of Stack and Queue using Collection.deque in Python
- ~ Interview-Based Coding question

=> HASHING DATA STRUCTURE :

- ~ Introduction to Hashing Data Structure
- ~ Hash Function and its types

=> COLLISION RESOLUTION TECHNIQUES :

- ~ Chaining

=> OPEN ADDRESSING :

- ~ Linear Probing
- ~ Quadratic Probing
- ~ Double Hashing
- ~ Perfect Hashing
- ~ Consistent Hashing
- ~ Interview-Based Coding Question - Two Sum Problem
- ~ Bloom Filters

=> TREE DATA STRUCTURE :

- ~ Introduction to Binary Tree
- ~ Complete Binary Tree and Almost Complete Binary Tree
- ~ Full Binary Tree and Representation using Array and Linked List
- ~ Interview-Based Coding Question - Symmetric Tree Or Not

=> BINARY SEARCH TREE :

- ~ Introduction

- ~ Insertion
- ~ Inorder Traversal in BST Gives Sorted Array Concept
- ~ Searching
- ~ Coding Implementation of Searching Operation
- ~ Deletion
- ~ Deletion Implementation
- ~ Standard Formula to count the number of possible BSTs given number of nodes
- ~ Interview-Based Coding question - Catalan Number Concept to find number of BST

=> HEIGHT BALANCED TREE: AVL TREE :

- ~ Introduction to AVL Tree
- ~ Insertion
- ~ Insertion Demonstration and Searching in AVL Tree
- ~ Deletion

=> HEIGHT BALANCED TREE: RED BLACK TREE :

- ~ Introduction: Why Red Black Tree?
- ~ Properties Of Red Black Tree
- ~ Insertion Rules in Red Black Tree
- ~ Example Demonstration 1 of Insertion in Red Black Tree
- ~ Example Demonstration 2 of Insertion in Red Black Tree Part 1
- ~ Example Demonstration 2 of Insertion in Red Black Tree Part 2
- ~ Example Demonstration 2 of Insertion in Red Black Tree Part 3
- ~ Searching
- ~ Deletion Rules in Red Black Tree
- ~ Example Demonstration of Deletion in Red Black Tree

=> B AND B+ TREE: USAGE IN DATABASES :

- ~ Insertion
- ~ Searching
- ~ Deletion

=> GRAPH TRAVERSAL ALGORITHMS :

- ~ Introduction to Graph Traversal Algorithms
- ~ Introduction to Depth First Search Algorithm
- ~ Depth First Search with Example illustration
- ~ DFS Pseudocode and illustration using Example
- ~ DFS Coding Implementation and Complexity Analysis
- ~ Breadth-First Search with Example illustration
- ~ Level Order Traversal Using BFT
- ~ BFS Pseudocode and coding implementation with complexity analysis
- ~ Interview-Based Coding Question - Binary Tree Zigzag Level Order Traversal

=> HEAP DATA STRUCTURE :

- ~ Introduction to Heap Data Structure
- ~ Maxheap and Minheap Overview
- ~ Insertion in Minheap
- ~ Example Demonstration of Insertion in Minheap
- ~ Deletion in Minheap
- ~ Creation in Minheap Part1
- ~ Creation in Minheap Part2
- ~ Mathematical Derivation to analyse the complexity of creation in minheap
- ~ Interview-Based Coding Question - Maximum Product of three numbers in an array
- ~ Interview-Based Coding Question - Finding of K closest Points from an origin
- ~ HeapSort Algorithm with Time complexity analysis
- ~ Pseudocode of HeapSort and Why HeapSort is not stable algorithm?

=> TREE TRAVERSAL :

- ~ Introduction to Tree Traversal
- ~ Inorder Traversal
- ~ Preorder Traversal
- ~ Postorder Traversal
- ~ Questions Based on Above Traversal Algorithms

=> GREEDY ALGORITHMS :

- ~ Introduction to Greedy Algorithms

=> DISCUSSION AND APPLICATIONS OF GREEDY :

- ~ Fractional Knapsack Problem
- ~ Pseudocode Of Fractional Knapsack Problem
- ~ Implementation Of Fractional Knapsack Problem

=> MINIMUM SPANNING TREE :

- ~ Introduction to Basics Of Graphs
- ~ Null Graph and Complete Graph
- ~ Introduction To Spanning Tree Algorithm
- ~ Concept Of Minimum Spanning Tree
- ~ Kruskal Algorithm
- ~ Time Complexity Of Kruskal Algorithm
- ~ Prim's Algorithm
- ~ Decrease Key Operation in MinHeap
- ~ Time Complexity Of Prim's Algorithm

=> SINGLE SOURCE SHORTEST PATH :

- ~ Introduction to Single Source Shortest Path
- ~ Dijkstra's Algorithms
- ~ Time Complexity Of Dijkstra's Algorithm
- ~ Implementation of Dijkstra's Algorithm
- ~ Introduction to Huffman Coding
- ~ Algorithm and Time Complexity Of Huffman Coding
- ~ Optimal Merge Pattern Algorithm and Time Complexity Analysis
- ~ Job Sequencing with Deadline

- ~ *Implementation Of Job Sequencing with Deadline*
- ~ *Bellman-Ford Algorithm*

=> DYNAMIC PROGRAMMING :

- ~ *Introduction to Dynamic Programming*
- ~ *Overlapping Subproblem in Dynamic Programming*
- ~ *Tabulation in Dynamic Programming*
- ~ *Memoization in Dynamic Programming*

=> DISCUSSION AND APPLICATIONS OF DYNAMIC PROGRAMMING :

- ~ *Fibonacci Series*
- ~ *Longest Common Subsequence*
- ~ *0/1 Knapsack Problem*
- ~ *Sum of Subset*

=> ALL PAIR SHORTEST PATH :

- ~ *Floyd Warshall Algorithm and Complexity Analysis*

=> STRING MATCHING ALGORITHMS :

- ~ *Introduction*
- ~ *Naive String Matching Algorithms*
- ~ *Rabin Karp Algorithm*
- ~ *KnuthMorrisPratt (KMP) Pattern Matching*

=> NP-HARD AND NP-COMPLETE PROBLEM :

- ~ *NP-Hard*
- ~ *NP-Complete Problem*

Data Structure and Algorithm Foundation

Topic Name : DATA STRUCTURE

Sub-topic Name : DSA MASTERS

Course link : <https://ineuron.ai/course/Data-Structure-and-Algorithm-Foundation>

Course Description :-

A computer program is a collection of instructions to perform a specific task. For this, a computer program may need to store data, retrieve data, and perform computations on the data. A data structure is a named location that can be used to store and organize data and an algorithm is a collection of steps to solve a particular problem. Learning data structures and algorithms allow us to write efficient and optimized computer programs. Data Structure is a way of collecting and organizing data in such a way that we can perform operations on these data in an effective way.

Course Features :-

- => Lifetime Dashboard
- => Free Course
- => Certificate
- => Assignment
- => Quiz

What you will learn :-

- => Data structure and algorithm
- => Use of data structure
- => Practical implementation
- => Logical ability

Requirements :-

- => Computer with Internet Connectivity
- => Basic programming understanding

Instructors :-

=> Priya Bhatia :

~ Expertise in data structure competitive programming and solving an analytical problems and implementing data structure algorithm in multiple programming language. I have done my M.Tech in Artificial Intelligence at IIT Hyderabad and have an experience of implementation in multiple projects.

Curriculum details :-

- => Introduction about Data Structure and Algorithms (Hindi) :
 - ~ Introduction Preview
- => Analysis in Data Structure Algorithms (Hindi)
- => Introduction to DS Algo Analysis Part 2 (Hindi)
- => Asymptotic Notation : Discussion about theta Notation
- => Big O Notation in DS&Algo (Hindi)
- => Omega Notation in DS&ALGO (Hindi)
- => Recurrence Relation Solving : Master's Theorem
- => Recurrence Relation Solving-Substitution method
- => Recursive Tree Method DSA - (Hindi)
- => Introduction to Divide and Conquer DSA - (Hindi)
- => Binary Search Part 1 - Data Structure and Algorithm Hindi
- => Binary Search Part 2 Data Structure and Algorithm - Hindi)
- => Mergesort Part 1 - Data Structure and Algorithm | Hindi
- => Mergesort Part 2 Data Structure and Algorithm (Hindi)
- => Mergesort Part 3 Data Structure and Algorithm (Hindi)
- => Introduction to Quicksort Algorithm | Data Structure and Algorithm | Hindi
- => Implementation of QuickSort | Data Structure and Algorithm (Hindi)
- => Recurrence Relation of Quicksort Algorithm | Data Structure and Algorithm | Hindi
- => Problem1 based on Quicksort | Data Structure and Algorithm | Hindi
- => Problem2 based on Quicksort | Data Structure and Algorithm

=> Selection Procedure Algorithm

=> Recurrence Relation of selection procedure | Data Structure and Algorithm | Hindi

=> Finding of Maxima and Minima Using DAC | Data Structure and Algorithm | Hindi

Qlik Sense

Topic Name : DATA ANALYTICS

Sub-topic Name : DASHBOARDING

Course link : <https://ineuron.ai/course/Qlik-Sense>

Course Description :-

This program is specialized in providing theoretical as well as practical understanding of the Qlik Sense analytical platform which allows you to learn how to build analytical apps. Course curriculum includes concepts about Qlik sense features, different charts, hands-on and much more!

Course Features :-

- => Learning of different concepts of Qlik sense analytical
- => Building Dashboards
- => Hands-on Project
- => Assignments
- => Practical Implementation
- => Downloadable Resources
- => Completion Certificate

What you will learn :-

- => Qlik sense features
- => Basic concepts
- => Installation
- => Tutorial
- => Build Charts
- => Building Dashboards
- => Project

Requirements :-

- => No prior knowledge in Analytics
- => System with Internet Connection
- => Interest to learn
- => Basic knowledge of BI
- => Dedication

Instructors :-

=> Khushali Shah :

~ A data scientist having rich experience working with MNCs and start-ups in the field of data science and machine learning. She has expertise in Chatbot development for various domains & been developing professionally for 6+ years with diverse job history. She also had positions in software module development, web app development, functional designs, requirement gathering, client interaction, and server setup/admin & can help everywhere in the stack; she loves wearing multiple hats to an extent. She also believes in enhancing her skills by training and learning new things day by day.

Curriculum details :-

- => Course Introduction :
 - ~ Syllabus overview Preview
 - ~ Introduction to Qlik Sense Preview
 - ~ Qlik Sense features
- => Dashboard :
 - ~ Overview
 - ~ Qlik APP
 - ~ Charts
- => Practical Implementation :
 - ~ Load data
 - ~ Creating charts
 - ~ Scatter plot

Android Programming with Machine Learning Apps

Topic Name : MOBILE DEVELOPEMENT

Sub-topic Name : ANDROID

Course link : <https://ineuron.ai/course/Android-Programming-with-Machine-Learning-Apps>

Course Description :-

Learning Android Development with Machine Learning will look great on any Android developer's CV. Machine Learning is a kind of Artificial Intelligence (AI) that allows the software to learn, explore, and predict outcomes without the need for human intervention. Machine learning has been employed in a variety of industries, and it is currently being actively used in the creation of mobile applications. Machine learning algorithms can analyse specific user activity patterns and respond to search queries with ideas and recommendations. This course will teach you how to use Android with Machine Learning .

Course Features :-

- => Course material
- => Course resources
- => On demand recorded videos
- => Practical exercises
- => Quizzes
- => Assignments
- => Course completion certificate

What you will learn :-

- => Android Studio fundamentals
- => Theme customization
- => Buttons and toasts
- => Fully customized Gradles
- => Android elements and components
- => SQLite database
- => JSON and APIs
- => Firebase
- => Machine Learning in Android
- => Various projects

Requirements :-

- => System with minimum i3 processor or better
- => At least 4 GB of RAM
- => Working internet connection
- => Dedication to learn

Instructors :-

- => Hitesh Choudhary :

~ I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

Curriculum details :-

- => Introduction to Android P development :
 - ~ Pep talk - Do not skip
 - ~ Tools that we will need
 - ~ Android History
- => Windows installation and setup :
 - ~ Installation of Android studio in WINDOWS
 - ~ AVD configuration and Hello world for WINDOWS
- => MAC setup and installation :
 - ~ Installation of Android - MAC
 - ~ Setting up Android Virtual device and config
- => Tour theme and App icons :
 - ~ Creating a project - API levels
 - ~ Exploring files in directory structure
 - ~ A tour of Android studio and customization - part 1
 - ~ A tour of Android studio and customization - part 2

- ~ Theme customisation and app on real device
- ~ Problems in App icon - Customization

=> Buttons and toasts :

- ~ Button Customization
- ~ Click events for buttons
- ~ Assignment Solution
- ~ Methods and buttons
- ~ Basics of Toast and assignment
- ~ Shorter toasts

=> Fully Customized Toasts and Gradles :

- ~ Basics setup for custom layouts
- ~ Preparing custom layouts
- ~ Customized layout inflation
- ~ Designing Elements in Linear layout
- ~ Gradle documentation
- ~ Final customization with gradle

=> Components Tour of Android elements :

- ~ Components tour
- ~ Exploring text fields
- ~ Buttons and widgets in android
- ~ Understand layouts in Android

=> Dice Roller app :

- ~ Designing assets for dice game
- ~ UI for DiceRoller
- ~ Writing code for diceRoller
- ~ Your assignment for this section

=> Fun Background app :

- ~ Fun Background Design
- ~ Code part - fun background app

=> Animated Login App :

- ~ Design assets for project AnimatedLogin
- ~ Applying animations in layout
- ~ Button Customization for app
- ~ Everything about button Customization
- ~ 1 more thing about buttons

=> Truth Dare Game :

- ~ Setting up UI for Truth dare game
- ~ Code for Game and assignment

=> Components of Android App :

- ~ Country Selector App - UI
- ~ Country Selector App - Code
- ~ Quick Change App
- ~ Burger Rating app - UI
- ~ Burger Rating app - code and assignment
- ~ Seekbar implementation
- ~ Uploader App UI
- ~ Uploader App Code with thread
- ~ Date Time picker in Android

=> Currency Converter app :

- ~ Design of currency Converter app
- ~ Design of currency Converter app part 2
- ~ Handling Empty input and Assignment

=> 3 Apps - Drumpad, examTimer, Music Player :

- ~ Going to a new screen

=> 4 Apps - Drumpad, examTimer, Music Player :

- ~ Passing multiple values from intent

=> 5 Apps - Drumpad, examTimer, Music Player :

- ~ MediaPlayer Class

=> 6 Apps - Drumpad, examTimer, Music Player :

- ~ Setting layout for DrumPad App

=> 7 Apps - Drumpad, examTimer, Music Player :

- ~ DrumApp code and assignment

=> 8 Apps - Drumpad, examTimer, Music Player :

- ~ Exam Timer App design

=> 9 Apps - Drumpad, examTimer, Music Player :

- ~ MediaPlayer App UI

=> 10 Apps - Drumpad, examTimer, Music Player :

- ~ Exam Timer App code and sound

=> 11 Apps - Drumpad, examTimer, Music Player :

- ~ Finishing Music Player app and Rockers

=> Recycler and Card Views :

- ~ Recycler and Card Views Introduction
- ~ Custom layouts and getters
- ~ ArrayList for views
- ~ 10 Step guide for custom adapters
- ~ Main config for Insta cards

- ~ Refactoring the data
- ~ Add and remove Cards

=> SQLiteDatabase App - Student Record :

- ~ Introduction to database - UI setup
- ~ Database Helper introduction
- ~ Insert and Update data using helper
- ~ CRUD helper in Sqlite
- ~ Helper for showing messages
- ~ Adding data in sqlite
- ~ Getting data and handling cursor
- ~ Getting all data at once
- ~ Update and deletion of data

=> Jason and API apps :

- ~ What is API and JSON
- ~ Converting regular objects in JSON
- ~ Json to regular objects and Serialized name
- ~ Objects inside an object
- ~ Array in an object
- ~ Volley and API Introduction
- ~ Fetching an API request
- ~ Singleton in Volley

=> Firebase - Amazing Online database :

- ~ Section Intro
- ~ What is Firebase?
- ~ Exploring Firebase for Android
- ~ Setting layout for login system
- ~ User Registration System
- ~ User login & logout
- ~ Firebase Database - Rock Paper Scissor Online Game
- ~ Understanding Firebase Database
- ~ Running game on multiuser
- ~ Setting user registration system to database UI
- ~ Setting user registration system to database - code
- ~ Getting complex user data from database
- ~ Firebase Image Uploader Part 1
- ~ Firebase Image Uploader Part 2

=> Machine learning - Face and Smile detection app :

- ~ Machine Learning KIT in Firebase
- ~ Connecting with MLKIT online
- ~ Custom assets and gradle
- ~ Firebase app initializer
- ~ Inflating result dialog box
- ~ Open a camera on a REAL device
- ~ Final code for Face and smile detection

=> Machine Learning - Text Detection app :

- ~ Text Recognition app
- ~ How to download exercise files
- ~ Adding Custom Assets
- ~ Firebase initializer
- ~ Result Activity
- ~ Firecamera in our app
- ~ Text Recognition and Debug

=> How to publish app on store :

- ~ How to publish app on store

AI Operations

Topic Name : DATA SCIENCE

Sub-topic Name : MLOPS

Course link : <https://ineuron.ai/course/AI-Operations>

Course Description :-

Artificial Intelligence Operations (AIOps) is the most in demand technical skill these days. It helps to incorporate DevOps principle in AI product development. It's a live instructor-led certification program provided by iNeuron intelligence private limited. Here you will learn various methods to implement AIOps methodology in the ML and DL projects which includes implementation on various clouds like AWS, Azure, GCP and DigitalOcean.

Course Features :-

- => AIOps certification
- => Online Instructor-led learning: Live teaching by instructors
- => Hands-on project implementation
- => 120+ hours of live interactive classes
- => Every week doubt clearing session after the live classes
- => Lifetime Dashboard access
- => Doubt clearing session
- => Doubt clearing through e-mail
- => Assignments in all the module
- => Resume building
- => Career guidance
- => Interview Preparation
- => Regular assessment
- => Live class recordings and materials
- => Interview Questions

What you will learn :-

- => AIOps
- => Linux foundation
- => GIT foundation
- => GitHub
- => Gitlab
- => Data version control DVC
- => MLFlow
- => Docker foundation
- => Kubernetes Foundation
- => Tensorflow Extend (TFX)
- => Kubeflow
- => AWS AIOps
- => Azure AIOps
- => GCP AIOps
- => Digital Ocean

Requirements :-

- => Minimum System requirement: Intel Core i3 processor and 4GB RAM or higher
- => Decent internet connection
- => Your Dedication

Instructors :-

- => Sunny Bhavleen Chandra :

~ Sr. Data Scientist and lecturer at iNeuron.ai with working experience in computer vision, natural language processing and embedded systems. Hands-on experience leveraging machine learning, deep learning, transfer learning models to solve challenging business problems. Also, he has a vast interest in Robotics.

Curriculum details :-

=> Introduction to AI Ops

=> Linux Foundation :

- ~ Why Linux? Linux types? How to access Linux env in different system
- ~ Installation of virtual box, WSL, sandbox for windows user
- ~ Free tier EC2 ubuntu instance
- ~ SSH and SSH tools
- ~ Putty
- ~ Filezilla
- ~ WinSCP
- ~ Course Introduction
- ~ Working with the Shell - I
- ~ Introduction to Shell
- ~ Basic Linux Commands: ls, cat, cd, rm, chmod...etc
- ~ Help for command line
- ~ Type of Shell: bash, zsh etc
- ~ Bash Shell
- ~ Linux Core Concepts
- ~ Linux Kernel and types
- ~ Linux file system
- ~ Linux Boot Sequence
- ~ Runlevels
- ~ File Types
- ~ Filesystem Hierarchy
- ~ Package Management
- ~ Package Management Introduction and configuration
- ~ Linux type based package manager
- ~ RPM and YUM
- ~ DPKG and APT
- ~ Working with the Shell - II
- ~ File Compression and Archival
- ~ Searching for Files and Patterns using grep/wildcards etc
- ~ VI, Nano Editor
- ~ Security and File Permissions
- ~ The Security Incident (story)
- ~ Linux Accounts
- ~ User Management
- ~ Access Control Files
- ~ Account Management
- ~ File Permissions and Ownership
- ~ Cronjobs
- ~ Service management with systemd
- ~ Working overtime (story)
- ~ Creating a systemd Service
- ~ systemd Tools
- ~ Lab - systemd services

=> GIT Foundation :

- ~ What? Why? When? Type? Vendor? Pricing? Industry wise uses of GIT
- ~ Creation of Github/Gitlab/bitbucket account
- ~ Local GitHub UI installation, setup with VSCode and Pycharm
- ~ Local and Remote Repositories installation and configuration
- ~ GIT Repository initialization
- ~ command: git log
- ~ Git Branches
- ~ What is branching in Git and why we need it?
- ~ Master/main branch and user-defined branch
- ~ Checkout and pushing to a branch
- ~ Merging of branches
- ~ Project control and management
- ~ In Remote Repositories
- ~ Initialization of Remote Repositories
- ~ Pushing code to the remote repositories
- ~ Cloning of the remote repositories to local
- ~ PR (Pull Requests)
- ~ Fetch and Pull
- ~ Handling conflict on merging branch
- ~ Forking of repository
- ~ Rebasing
- ~ Resetting and Reverting
- ~ Stashing

=> Data Version Control (DVC) :

- ~ DVC
- ~ What is DVC?
- ~ Installation
- ~ Mac OS
- ~ Windows
- ~ Linux
- ~ Get Started
- ~ Data Versioning
- ~ Model Versioning
- ~ Data Access
- ~ Model Access
- ~ Data Pipelines
- ~ Metrics, Parameters, Plots
- ~ Run, Queue, Compare, Persisting, and Sharing Experiments

- ~ Clean up
- ~ DVC Uses
- ~ Versioning Data and Models
- ~ Sharing Data and Model Files
- ~ Data Registries
- ~ Shared Development Server
- ~ Project Structure
- ~ Experiment Management
- ~ Setup Google Drive Remote
- ~ Large Dataset Optimization
- ~ External Dependencies
- ~ Managing External Data
- ~ Automate Pipelines with DVC
- ~ Pipelines & Experiment Automation
- ~ Common issues with ML experiments
- ~ Build automated pipelines
- ~ Build automated pipeline
- ~ Experiments Management
- ~ Experimenting with reproducible pipelines
- ~ Tracking metrics and plots
- ~ Compare experiment results
- ~ Build, Test & Deploy
- ~ Introduction to CI/CD in Machine Learning
- ~ Build CI/CD pipeline
- ~ Install GitLab Runner and Trigger CI/CD pipeline
- ~ Build Machine Learning pipeline
- ~ Build CI/CD pipeline
- ~ Trigger CI/CD pipeline
- ~ Making Continuous Integration work with ML
- ~ DVC Integration with Project
- ~ Build a model Prototype
- ~ Build a prototype with Jupyter Notebook
- ~ Start to version your code with Git
- ~ Version your code with Git
- ~ Create pipelines
- ~ Automate pipelines and data versioning with DVC
- ~ Create CI pipeline to build, test, experiment
- ~ Experimenting with DVC and CML
- ~ Deploy your model

=> MLFlow :

- ~ What is MLFlow?
- ~ Installation
- ~ MLflow Tracking
- ~ Where Runs Are Recorded
- ~ How Runs and Artifacts are Recorded
- ~ Scenario 1: MLFlow on localhost
- ~ Scenario 2: MLFlow on localhost with SQLite
- ~ Scenario 3: MLFlow on localhost with Tracking Server
- ~ Scenario 4: MLFlow with remote Tracking Server, backend and artifact stores
- ~ Logging Data to Runs
- ~ Logging Functions
- ~ Launching Multiple Runs in One Program
- ~ Performance Tracking with Metrics
- ~ Visualizing Metrics
- ~ Automatic Logging
- ~ Scikit-learn
- ~ TensorFlow and Keras
- ~ Gluon
- ~ XGBoost
- ~ Pytorch
- ~ MLFlow Tracker
- ~ Organizing Runs in Experiments
- ~ Managing Experiments and Runs with the Tracking Service API
- ~ Tracking UI
- ~ Querying Runs Programmatically
- ~ MLFlow Tracking Servers
- ~ Storage
- ~ Networking
- ~ Logging to a Tracking Server
- ~ MLflow Projects
- ~ Overview
- ~ Specifying Projects
- ~ Running Projects
- ~ Iterating Quickly
- ~ Building Multi Step Workflows
- ~ MLFlow Models
- ~ Storage Format
- ~ Model Signature And Input Example
- ~ Model API
- ~ Built-In Model Flavors
- ~ Model Customization
- ~ Built-In Deployment Tools
- ~ Deployment to Custom Targets
- ~ Model Registry
- ~ Model Registry Workflows
- ~ UI Workflow
- ~ Registering a Model
- ~ Using the Model Registry

- ~ API Workflow
- ~ Adding an MLFlow Model to the Model Registry
- ~ Fetching an MLFlow Model from the Model Registry
- ~ Serving an MLFlow Model from Model Registry
- ~ Adding or Updating an MLFlow Model Descriptions
- ~ Renaming an MLFlow Model
- ~ Transitioning an MLFlow Models Stage
- ~ Listing and Searching MLFlow Models
- ~ Archiving an MLFlow Model
- ~ Deleting MLFlow Models

=> Docker Foundation :

- ~ Setup
- ~ Why? What? Where? Problem it can solve? Docker types? Cloud based docker containers
- ~ Installation of specific docker editions based on your system
- ~ Installing Docker
- ~ Create and Use
- ~ Docker Install, Configuration and verify
- ~ Container VS
- ~ Windows Containers unlike Linux
- ~ Inside Containers - Process Monitoring with Command Line Interface(CLI)
- ~ Private and Public Communication in Containers
- ~ CLI Management of Virtual Networks
- ~ Domain Name System(DNS) for Containers can find each other
- ~ Containers
- ~ Docker Image
- ~ Docker Hub Registry predefined Images
- ~ Images and Their Layers: Discover the Image Cache
- ~ Image Tagging and Pushing to Docker Hub
- ~ Create images
- ~ Using Dockerfile Basics
- ~ Run Docker Builds
- ~ Extend Official Images
- ~ Container Lifetime & Persistent Data
- ~ Persistent Data: Data Volumes
- ~ Shell Differences for Path Expansion
- ~ Persistent Data: Bind Mounting
- ~ Docker Compose
- ~ What is Docker Compose ?
- ~ Docker-compose.yml
- ~ Compose Commands
- ~ Add Image Building to Compose Files
- ~ docker project: Deploy ML model and services using Docker

=> Kubernetes Foundation

=> TFX

=> Kubeflow :

- ~ What is Kubeflow?
- ~ Core Kubeflow components
- ~ How to set up Kubeflow on Kubernetes
- ~ How to develop basic ML models in Kubeflow Notebooks
- ~ How to train and deploy models in Kubeflow
- ~ How to use Kubeflow Pipelines
- ~ How to use KFServing to deploy models
- ~ How to manage logs with Kubeflow Metadata component
- ~ Katib Hyper Parameter Tuning
- ~ Kubeflow Pipelines to KFServing

=> GitLab Foundation :

- ~ GitLab Triggers
- ~ AWS S3 storage
- ~ GitLab CI/CD Pipelines
- ~ Pipelines definition
- ~ MongoDB cloud Atlas
- ~ Heroku
- ~ Logdata
- ~ Coral for Monitoring

=> AWS MLOps :

- ~ Amazon Sagemaker
- ~ Amazon s3
- ~ AWS Codebuild
- ~ AWS Codecommit
- ~ Sagemaker Training Job
- ~ Sage Maker Endpoint
- ~ Amazon Api Gateway
- ~ Sagemake Model Monitoring
- ~ Cloudwatch Synthetics
- ~ Cloudwatch Alarm

=> Azure MLOps :

- ~ Create an Azure Machine Learning workspace
- ~ Setup a new project in Azure DevOps
- ~ Import existing YAML pipeline to Azure DevOps
- ~ Declare variables for CI/CD pipeline
- ~ Create training compute
- ~ Train ML model
- ~ Register model
- ~ Deploy model in AKS

=> GCP MLOps :

- ~ *Creating Flask application using Python*
- ~ *Best practices building Flask App*
- ~ *Understanding Docker files and Dependencies*
- ~ *Creating container image*
- ~ *Walkthrough of different deployment options*
- ~ *Serverless deep dive*
- ~ *Deploying on GCP App Engine*
- ~ *Deploying on Serverless Framework*
- ~ *Hosted Kubeflow Pipelines*
- ~ *Start Hosted Pipelines*
- ~ *cluster permissions*
- ~ *Development environment*
- ~ *Launch AI Platform notebook*
- ~ *CI/CD Production Environment*
- ~ *Set up Continuous Integration (CI)*
- ~ *Verify CD*

=> Digital Ocean :

- ~ *Droplets*
- ~ *File Transfers*
- ~ *Gitops*
- ~ *Jenkins*
- ~ *Creating Jobs*
- ~ *Creating pipelines in Jenkins*
- ~ *Docker Images*
- ~ *Kubernetes Flow*
- ~ *Creating Clusters*
- ~ *Load testing*

Class 6th Chemistry

Topic Name : K12

Sub-topic Name : CLASS6

Course link : <https://ineuron.ai/course/Class-6th-Chemistry>

Course Description :-

The Science Syllabus is elegantly designed such that it introduces the basic concepts of Science and its importance in our daily life. It will make the foundation strong for the higher classes. In this, the Chemistry section focuses on concepts like Fibre to Fabric, Sorting materials into groups, Separation of substances, etc.

Course Features :-

=> Self Paced Videos

=> Completion Certificate

What you will learn :-

=> Variety in fabrics

=> Fibre

=> Some plant fibres

=> Spinning Cotton Yarn

=> Yarn to fabric

=> History of clothing material

=> Objects around us

=> Properties of materials

=> Methods of Separation of substances

=> Ways to bring a change

=> Can all changes be reversed?

Requirements :-

=> System with Internet Connection

=> Interest to learn

=> Dedication

Instructors :-

=> Jayant Topnani :

~ Having 2+ years teaching experience and have mentored students online & offline across all boards.

Curriculum details :-

=> CHAPTER 3 - FIBRE TO FABRIC :

~ LECTURE 1 Natural Fibre and Synthetic Fibre Preview

~ LECTURE 2 Yarn to Fibre

~ LECTURE 3 NCERT Question Discussion

=> CHAPTER 5 - Separation of Subs :

~ LECTURE 1 : Introduction

~ LECTURE 2 : Method of Separation

~ LECTURE 3 : Filtration, Sedimentation, Centrifugation Preview

~ LECTURE 4 : Evaporation, Condensation

=> CHAPTER 6 - CHANGES AROUND US :

~ LECTURE 1 : Reversible and Irreversible Change

~ LECTURE 2 : Physical and Chemical Change

~ LECTURE 3 : NCERT Question Discussion

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