Full Stack Data Science BootCamp 2.0

Instructors:

Sunny Bhaveen Chandra: Sr. Data Scientist and lecturer at iNeuron.ai with working experience in compute

krish naik: Having 10+ years of experience in Data Science and Analytics with product architecture design

Sudhanshu Kumar: Having 8+ years of experience in Big data, Data Science and Analytics with product ar

Sunny Savita: I'm an AI enthusiast, graduate in Computer science and engineering. Currently working with

Curriculum:

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

Working with Graphs & Charts

- Introduction to Graphs & Charts

- Working with Graphs in Python

API

- API Testing

Python Projects

- Flask End to End Project

- Review Scrapper

- Image Scrapper 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 Rigde 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 Explaination
- ML Project Explaination 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

ML Project 4 :- 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

ML Project 5 :- 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

ML Project 6 :- 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 Tunning
- Prediction
- Deployment
- The Problem Statement and Data Description

ML Project 7 :- Mushroom Classification

- Introduction
- The Application Flow
- Code Intro and Logging
- Validation and Transformation
- DB Operations
- Data Preprocessing
- Clustering
- Model Selection and Tuning
- Predictions
- Deployment

ML Project 8 :- Phishing Classifier

- Introduction

- The Application Flow
- Code intro and Logging
- Validation and Transformation
- DB Operations
- Data Preprocessing
- Clustering
- Model Selection and Tuning
- Prediction
- Deployment

ML Project 9 :- Thyroid Detection

- Introduction
- The Problem Statement and Data Description
- The Application Flow
- Code intro and Logging
- Vallidation and Transformation
- DB Operation
- Data Preprocessing
- Clustering
- Model Selection and Tuning
- Prediction
- Deployment

ML Project 10 :- Visibility Climate

- Introduction
- The Problem Statement and Data Description
- The Application Flow
- Code intro and Logging

- Validations and Transformation

- DB Operations

- Data Preprocessing

- Clustering

- Model Selection and Tuning

- Prediction

- Deployment

DL ANN - Introduction

- Introduction to Deep Learning

- Importance of Deep learning

- Why you should study Deep Learning? (Motivation)

- ANN

- 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

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

- Back propagation

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 Intution for CNN

- CNN, Kernels, Channels, Feature Maps, Stride, Padding

- Receptive Fields, Image Output Dimensationality Calculations, MNIST Dataset Explorations with CNN

- MNIST CNN Intutiton, Tensorspace.js, CNN Explained, CIFAR 10 Dataset Explorations with CNN

- Dropout & Custom Image Classification Dog Cat Dataset

- Deployment in Heroku, AWS, Azure

Computer Vision - CNN Architectures

- LeNet-5

- LeNet-5 Practical

- AlexNet

- AlexNet Practical

- VGGNet

- VGG16 Practical

- Inception

- Inception Practical

- ResNet

- Resnet Practical

Computer Vision - Data Augmentation

- What is Data Augmentation?

- Benefits of Data Augmentation

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

- FASTER RCNN

- FASTER RCNN Network Architecture

- YOLO

- YOLO Architecture

- YOLO Limitations

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

- Visting 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

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

- Detecron2 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

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

AIOPS Introduction

- Introduction 1

- Introduction 2

- Introduction 3

- Challenges

- AIML Generic Steps

AIOPS Linux

- Introduction to Linux

- What is Linux

- Important Pieces in Linux

- Features of Linux

- Evolution of Linux

- Differences between Windows and Linux

AIOPS Git

- Git Introduction

- Types of Version Control

- What is Git?

- Why Git?

- Git Installation in Windows

- Git Installation in Linux

- Git Setup

- Git Terminologies

- Repositories in GIT

- Creating Repository
- Checking Repository History
- Doing Commits
- git diff
- git restore
- Tagging
- Branching
- Branching Practicals
- Merging
- Merge Conflicts
- Remote repository
- Cloning Repository
- Working with Remote Repository
- Pushing to Remote Failed in Github
- Personal Access Token Setup in Windows
- Personal Access Token Setup in Linux
- Pull Request
- git Fetch & Pull
- Fork
- Rebasing
- Interactive Rebasing
- Git Rewrite History
- Git Rewrite History continued
- Cherry Picking
- Modify Recent Commits
- Git Revert

- Git Checkout

- Git Reset

- Git Stash

- Git Reflog

- Course Outro

AIOPS Docker

- Docker 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

- Docker Basic Commands part 1

- Docker Basic Commands part 2

- Docker Run Part 1

- Docker Run Part 2

- Docker Images

- Creating a new image

- Environment variables

- Commands & Entrypoints

- Docker Compose

- Voting Application Understanding

- Docker Compose Versions

- Docker Compose Networks

- Voting Application with Docker Run

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 - 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 Reccomendation 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 Hirearchies in Matrix

- 4.8 Sub-Total and Total in Matrix

- 4.9 Number Formatting in Table

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

Charts - 4

- Text Table

- Text Table with Multiple Measures

- Measure Names and Measure Values

- Line Chart

- Line Chart with Multiple Measures

- Discrete Vs Continous Line Chart

- Discrete Vs Continuous

Charts - 5

- Lollipop Chart

- Line Vs Column Chart

- Dual Axis Chart

- Column vs Shapes

- Bar in Bar Chart

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 Funtions

- String functions

- Mathematical functions

- Lookup

- Logical & Error Functions

Chatbot - Google Dialog Flow

- What is Chatbot?

- Why Chatbot?

- Types of Chatbot

- Use of Chatbot

- Examples of chatbot

- Chatbot Architecture

- Google Account

- Dialogue Console quick review

- Dialogflow - Agents

- Dialogflow - Create and mange 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
- Overview
- Create Agent in Dialogflow
- Create Intent and Entities
- Food order Intent
- Why integration required?

- Telegram Integration

- facebook integration

- facebook integration test

- Slack Integration

- Covid-19 chatbot Overview

- Agent & intent creation

- World stats info intent

- webhook code for welcome intent

- Get Stats Covid code

- world Covid code

- Deployment

- Enable webhook

- Summary

Chatbot - RASA

- What is Chatbot?

- Why Chatbot?

- What is Rasa?

- Why Rasa?

- Create a Virtual Environment using conda

- Installation of Rasa in Windows

- Introduction to Rasa NLU - Intents and Entities

- Creating Intents & Entities Examples: Training Data

- Rasa NLU File structure

- Defining NLU Pipeline in Config File

- Install RASA-x

- Train our first Rasa NLU model

- Rasa NLU Entity Synonyms & Lookup Tables

- Introduction to Custom Components in RASA NLU

- Introduction of Transfer Learning and Pre-trained Word Embeddings

- Custom Gensim embeddings in RASA

- RASA Core

- Custom Action Defined

- RASA Core-Stories

- Introduction of Dialogue Policies

- Memoization & Mapping Policy

- Machine learning policy

- Priority Policies

- Add intent domain.yml

- Update response

- Add stories.md

- Train model

- Telegram integration

- Facebook integration

- Twilio account

- Whatsapp integration url

- Course summary

Chatbot - Amazon Lex

- Introduction

- What is Chatbot?

- Why Chatbot?

- What is Lex?

- Lex supported languages

- Programming Model
- Intent & Slots
- Model Building APIs
- Runtime API Operations
- Managing Messages
- Confidence Score
- Conversation Log
- Built-in Intents
- Built-in Slot Types
- Custom Slot Types
- Sentiment Analysis
- Configuring Lambda functions as fulfillment
- Integration
- Custom Building Chatbot Overview

Chatbot - Azure Luis

- Course Introduction
- What is Chatbot?
- Why Chatbot?
- What is LUIS?
- 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

- Overview

- Azure portal setup

- Intent/entity

- Luis App credentials

- Installation

- Code walkthrough

- Bot emulator

- Summary

Interview Preparation - Introduction & Induction

- Induction & Course Introduction

- Impact of Data Science in today's world & Roles in Data Science

Interview Preparation - Transition Stories

- Transition story

- Transition story

- Transition Story and Resume Discussion

Interview Preparation - AI Projects Discussion

- Insurance Fraud Detection

- Forest Cover Classification

- Project Architecture Discussion

- Year Wise Resume Discussion

- Project Architecture Discussion

- Project Architecture Discussion - 2

- Brand Measure Project Discussion

- Project Architecture Discussion - 3

- Megatron Project Discussion

- Python Discussion

Interview Preparation - Python

- Python Discussion

- Python Discussion

Interview Preparation - Databases

- MYSQL and MongoDB Discussion

- Interview Question Discussion - 2

Interview Preparation - Interview Questions Discussion

- Interview Question Discussion

- Resume Discussion

- Interview Question Discussion - 3

- Interview Question Discussion - 4

- Interview Question Discussion - 5

Interview Preparation - Project Discussion

- Vision-Based Attendance System

- Face Recognition & Mlops Discussion

- Mlops Discussion

- Brand Measure Project Discussion

- NLP Use Cases Discussion

Interview Preparation - Interview Questions Discussions

- Interview Question Discussion - 1

- Interview Question Discussion - 2

- Interview Question Discussion

Interview Preparation - General Discussion

- Discussion Session - 1

- Discussion Session - 2