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## **Full Stack Data Science BootCamp 2.0**

This is a full stack data science course with a live mentor-led certification programme 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.

**Mode: self-paced**

**Language: English**

**Duration:**

### **What you'll learn:**

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

### **Course Features:**

- Full stack Data Science master's certification
- Job guarantee otherwise refund
- 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.
- 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 Anytime

Career guidance Anytime  
Interview Preparation Anytime  
Regular assessment  
Job Fair and Internal Hiring  
Mock Interview Anytime

**Requirements:**

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

**Pricing:**

17700 INR  
240 USD

**Course Curriculum:****1. Welcome to the Course**

Course Overview  
Dashboard Introduction

**2. 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

**3. 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

**4. 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

## **5. 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

## **6. Working with Graphs & Charts**

Introduction to Graphs & Charts

Working with Graphs in Python

## **7. API**

API Testing

## **8. Python Projects**

Flask End to End Project

Review Scrapper

Image Scrapper and deployment on Heroku, AWS and Azure

## **9. Statistics**

Introduction to Stats - Day 1

Stats - Day 2

Extra doubt session

Stats - Day 3

Stats - Day 4

Stats - Day 5

## **10. EDA & Feature Engineering**

Introduction to EDA

Doubt Clearing session

EDA and Feature Engineering

## **11. 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

## **12. 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

## **13. PCA in ML**

PCA

PCA Implementation

## **14. NLP for Machine Learning**

NLP in ML

Spam Classification

## **15. Time Series Analysis**

Introduction to Time Series

Time Series Implementation

## **16. 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 Interval Z Test Statistics Derive Conclusion

Hypothesis testing part 2

Hypothesis testing part 3

Finalizing statistics

## **17. 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

## **18. 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

#### **19. 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

#### **20. 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

#### **21. 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

#### **22. 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

### **23. 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 Tuning

Prediction

Deployment

The Problem Statement and Data Description

### **24. 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

### **25. 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

## **26. 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

## **27. 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

## **28. DL ANN - Introduction**

Introduction to Deep Learning

Importance of Deep learning

Why you should study Deep Learning? (Motivation)

ANN

The first Artificial Neuron

## **29. 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

## **30. 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

## **31. DL ANN - 2**

- Vector
- Differentiation
- Partial differentiation
- Maxima and minima concept
- Gradient descent basics
- In-depth understanding of Gradient descent with mathematical proof

## **32. DL ANN - 3**

- Chain rule
- Back propagation

## **33. 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

## **34. DL ANN - 5**

- Introduction to fast optimizers
- Momentum optimization
- NAG

Elongated bowl problem | AdaGrad

RMSProp

Adam

Loss functions

Regularization

Dropout

## **35. 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

## **36. 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

## **37. Computer Vision - CNN Architectures**

LeNet-5

LeNet-5 Practical

AlexNet

AlexNet Practical

VGGNet

VGG16 Practical

Inception

Inception Practical

ResNet

Resnet Practical

## **38. Computer Vision - Data Augmentation**

What is Data Augmentation?

Benefits of Data Augmentation

## **39. 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?

#### **40. 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

#### **41. 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

#### **42. 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

#### **43. Computer Vision - Practicals Creating an Cards Detector Web App with TFOD1**

Code Understanding

WebApp Workflow

Code Understanding

Prediction with Postman

Debugging our Application

#### **44. 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

#### **45. 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

#### **46. 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

#### **47. Computer Vision - Practicals Object Detection using Detectron2**

Introduction to Detectron2

Detectron2 Colab Setup

#### **48. 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

#### **49. 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

## **50. Computer Vision - Practicals Object Detection using YoloV5**

- Introduction to YoloV5
- YoloV5 Colab Setup
- Inferencing using Pre Trained Model

## **51. 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

## **52. 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

## **53. Computer Vision - Image Segmentation**

- Segmentation Introduction
- From Bounding Box to Polygon Masks
- What is Image Segmentation?
- Types of Segmentation
- MASKRCNN
- MASK RCNN Architecture

## **54. 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

## **55. 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

## **56. 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

## **57. Computer Vision - Object Tracking Project**

- Object Tracking project
- Project Installation Tracking
- Project Demo
- Code Understanding

## **58. Computer Vision - GANS**

- Introduction to GANS
- GAN Architecture
- GAN PRACTICALS Implementation

## **59. 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 augementer
- Data Annotations
- Model Training
- Creating a Pycharm project & Environment Setup TVD

WebApp Workflow

Code Understanding

Prediction with Postman

Debugging our Application

## **60. 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

## **61. 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

## **62. 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

### **63. 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

### **64. 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

### **65. NLP Overview**

NLP Overview

NLP very basic

### **66. NLP Word Embeddings**

TFIDF

Word Embeddings Part-1



Word Embeddings Part-2

**67. NLP RNN**

RNN basic

RNN Implementation

**68. NLP LSTM & GRU**

LSTM Introduction

GRU

**69. NLP Attention Based Model**

Encoder Decoder and Attention Mechanism

Attention All You Need Paper Understanding

**70. NLP Transfer Learning in NLP**

GPT and BERT Model

**71. NLP Project:- Text to Speech**

Introduction

Project Setup Text to Speech

Project Demo

Code Explanation

Project Workflow

Prediction with Postman

Debugging Application

**72. NLP Project:- Speech To Text**

Introduction

Project Setup Speech To Text

Project Demo

Code Explanation

Project Workflow

Prediction with Postman

Debugging Application

**73. NLP Project:- Spell Corrector**

Introduction

Project Setup Spell Corrector

Project Demo

Code Explanation

Project Workflow

Prediction with Postman

Debugging Application

**74. NLP Project:- Named Entity Recognition**

NER using BERT

**75. NLP Project:- Machine Translation & Keyword Spotting**

Machine Translation

Keyword Spotting

## **76. NLP Project:- Keyword Extractor & Summarization**

Keyword Extraction

Extractive Text Summarization

## **77. NLP project:- Paraphrasing**

Rephrase Project

## **78. AIOPS Introduction**

Introduction 1

Introduction 2

Introduction 3

Challenges

AIML Generic Steps

## **79. AIOPS Linux**

Introduction to Linux

What is Linux

Important Pieces in Linux

Features of Linux

Evolution of Linux

Differences between Windows and Linux

## **80. 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

## **81. 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

## **82. BigData - Introduction to Big Data and Data Engineering**

Big Data Engineering

## **83. BigData - Introduction to Distributed Systems - Hadoop and MapReduce**

Big Data Engineering Introduction

## **84. BigData - Map Reduce & YARN**

Big Data Hadoop Map Reduce YARN

Hadoop Map Reduce Hands On

## **85. BigData - Hive**

Apache hive

## **86. BigData - Hive Hands On**

Apache hive Hands On

## **87. BigData - NoSQL and Hbase**

Big Data HBase

Hbase hands On

## **88. 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

## **89. BigData - Spark ML**

Big Data Engineering using PySpark- MLLib

Spark hands On - Spark ML Lib

## **90. BigData - Spark Streaming**

Big Data Engineering using PySpark- Streaming Part 1

Big Data Engineering using PySpark- Streaming Part 2

Spark hands On - Spark Streaming

## **91. BigData - Kafka**

Big Data Kafka

Big Data Kafka Hands on

## **92. BigData - Apache Airflow - Workflow Management Platform**

Big Data - Airflow

Big Data Airflow Hands On

### **93. Big Data Projects**

IoT Sensor data pipeline using Kafka-Spark Streaming

Product Recommendation Engine using Kafka-Spark Streaming

Short Video App Analytics

### **94. 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

### **95. 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

### **96. 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

### **97. Introduction to tableau**

Tableau Introduction

Download and Install Tableau

Tableau Vs Excel

### **98. Charts - 1**

Column Chart

- Horizontal Bar Chart
- Stacked Column Chart
- Stacked Bar Chart
- Keep Only, Exclude
- Keep Only, Exclude2\_Normal
- Publish to Tableau Public

## **99. Charts - 2**

- Pie Chart
- Multiple Pie Chart
- TreeMap\_Editing
- Packed Bubble Chart
- Word Cloud OR Word Map
- Formatting payal

## **100. Charts - 3**

- Data Types in Tableau
- Filled Map
- Symbol Maps
- India Map
- Histogram

## **101. Charts - 4**

- Text Table
- Text Table with Multiple Measures
- Measure Names and Measure Values
- Line Chart
- Line Chart with Multiple Measures
- Discrete Vs Continuous Line Chart
- Discrete Vs Continuous

## **102. Charts - 5**

- Lollipop Chart
- Line Vs Column Chart
- Dual Axis Chart
- Column vs Shapes
- Bar in Bar Chart

## **103. 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

## **104. Excel**

- Introduction to Excel
- Pre-defined functions
- Datetime Functions
- String functions
- Mathematical functions
- Lookup
- Logical & Error Functions

## **105. 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 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
- 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

## **106. 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

## **107. 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

## **108. 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

## **109. Interview Preparation - Introduction & Induction**

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

## **110. Interview Preparation - Transition Stories**

- Transition story
- Transition story
- Transition Story and Resume Discussion

## **111. 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

#### **112. Interview Preparation - Python**

Python Discussion

Python Discussion

#### **113. Interview Preparation - Databases**

MYSQL and MongoDB Discussion

Interview Question Discussion - 2

#### **114. Interview Preparation - Interview Questions Discussion**

Interview Question Discussion

Resume Discussion

Interview Question Discussion - 3

Interview Question Discussion - 4

Interview Question Discussion - 5

#### **115. Interview Preparation - Project Discussion**

Vision-Based Attendance System

Face Recognition & Mlops Discussion

Mlops Discussion

Brand Measure Project Discussion

NLP Use Cases Discussion

#### **116. Interview Preparation - Interview Questions Discussions**

Interview Question Discussion - 1

Interview Question Discussion - 2

Interview Question Discussion

#### **117. Interview Preparation - General Discussion**

Discussion Session - 1

Discussion Session - 2

### **Instructors:**

#### **1. Sunny Bhveen 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.

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### 4. 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.

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