MLDL

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:

Course Introduction

• Introduction of Data science and its application in Day to Day life

• Course overview and Dashboard description

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, C omparison and Assignment o perators, 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 Ndarray 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 Randon

- 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 Learning 4

- SVR

- S V M

- Polynomial Regression

- Ada boost

- Gradient boost

- Gaussian mixture

- Anamoly detection

- Novelty detection algorithm Stacking

- K NN regressor

- Decisson tree regressor DBSCAN

Natural Language Processing

- Text Ananlytics

- 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 responsiblities

- Data scientist day to day work

- Companies which hire a data scientist

- Resume discussion with our team one to one

Tableau and PowerBI self Paced 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 Question

Python projects

- Web crawlers for image data sentiment analysis and product review sentiment analysis

- Integration with web portal

- Integration with rest API with Web portal and Mongo DB on Azure

- Deployment on web portal on Azure

- Text mining

• Social media data churn

Chatbot Projects

• 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 Projects

• 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 recognization based attendance system.

• Vehicle Number plate detection and recognition system.

Tableau and PowerBI Projects

• Project 1. Project Sales.

• Project 2. Financial Report.

• Project 3. HealthCare.

• Project 4. Procurement Spend Analysis.

• Project 5. Human Resource Tableau