Machine Learning And Deep Learning Masters

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 compari s on with other Preview

• Programming language

• Installation of Anaconda Distribution and other python

• IDE Python Objects, Number & Booleans, Strings Preview

• 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 Learning4

• 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 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.

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 recognization 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