STUDY GROUP FOR

UNCOVER DATA SCIENCE

STUDY

CODE

DEPLOY

UPSKILL

Syllabus Covered

1 **PYTHON**

Data Types, Conditional & control statements, File Handlings, OOPS, Data Structures including graph Theory

NUMPY, PANDAS, PANDASAI, MATPLOTLIB

2 **Maths & Stats**

Linear Algebra, Vectors, Matrics, SVD, Calculas, Chain Rules, Gradient Ascent & Desent,

Minima & Mixima Functions, Optimazation theory

Introduction to Stats, Descriptive & Infertial Stats

2 **Probablity**

Basics, Bayes theorem, Probability & distribution, Bayes Data Analysis & Algorithms

Syllabus Covered

4   Machine Learning

Regression Models, Classification, Clustering, Recommendation Systems, Features selection, PCA, PCA for Regression, Probablites PCA, Dimenstionality Reducing Methods.

5   DEEP LEARNING

Introduction to Image Processing, OPEN CV, Neural Networks, ANN, CNN, RNN, LSTM, Transformers, Transformers for OPEN CV, Object Detection and Tracking, Diffusion Modelling, DALL-E2, Object Detection without Labelled Data, Control Net

6   NLP

Introduction to NLP, Understanding of characters, Converting words to Numericals, TF-IDF, Bag of Words, Embedding, BERT Arch, ChatGPT Arch, Build Custom ChatGPT, Large language Modelling, DV using Text data

Syllabus Covered

7 **MLOPS**

Introduction to MLOPS, Levels of MLOPS, Model Packing and Testing of Application, Model validations, deployment, Strategies, MLOPS Frameworks, like KubeFlow, MLFlow, GenML, Model Observliblity-Model, data Driff, Root cause Analysis, Model Metrics & Dashboard - Grefona, permet house, Model Expandability, model Fairness

Session on Saturdays or Sundays -- Please reach out to me via DM for other details.