Data Science & AI

Course Highlights

- Duration: 3 Months
- 80+ hrs of Live Online Training:

  - - 45 Sessions (Daily 1.5hr Session)
  - - 5+ Real Time Projects in various domains
  - - 1 Capstone Project (End to End project)
  - - 20 Modules
  - - 14 Tools
  - - 25 Algorithms

- Course materials:

  - - Notes/PPT's (can't be downloaded)
  - - Codes
  - - Datasets

- 3 Industry Certifications:

  - - 3 Months Internship Certificate and Training Completion from IT Company

- Resume Building:

  - - Projects
  - - Skillset
  - - Tools
  - - Certification

- 500+ Interview Questions

Modules

Mathematics
- Linear Algebra & Calculus
- Probability & Probability Distributions

Statistics
- Descriptive Statistics
- Inferential Statistics / Statistical Tests → Hypothesis Testing

Python Programming
- Core Python
- Python Libraries:

- - Numpy
- - Pandas
- - Matplotlib
- - Seaborn
- - Scipy

Data Preprocessing
- Data Cleaning
- Data Wrangling
- Feature Engineering
- Feature Selection
- Dimension Reduction

Data Analytics
- Exploratory Data Analysis

Machine Learning (ML)
- Regression:

  - - Linear Regression → (Least Squares Method):
  - - Simple Linear Regression (ML Algorithm 1)
  - - Multiple Linear Regression (ML Algorithm 2)
  - - Polynomial Regression (ML Algorithm 3)
  - - Lasso Regression (ML Algorithm 4)
  - - Ridge Regression (ML Algorithm 5)
  - - Elastic Net Regression (ML Algorithm 6)
  - - Evaluation Metrics for Regression

- Classification:

  - - K-Nearest Neighbors (ML Algorithm 7)
  - - Logistic Regression (ML Algorithm 8)
  - - Support Vector Machines (Linear) (ML Algorithm 9)
  - - Kernel SVM (Non Linear) (ML Algorithm 10)
  - - Navies Bayes (ML Algorithm 11)
  - - Decision Tree (ML Algorithm 12)
  - - Random Forest (ML Algorithm 13)
  - - Ada Boost (ML Algorithm 14)
  - - Gradient Boost (ML Algorithm 15)
  - - XG Boost (ML Algorithm 16)
  - - Evaluation Metrics for Classification

- Clustering:

  - - K-Means Clustering (ML Algorithm 17)
  - - Hierarchical Clustering (ML Algorithm 18)

- ● - DBSCAN Clustering (ML Algorithm 19)

- ● Time Series & Forecasting:

  - ● - AR (ML Algorithm 20)
  - ● - ARMA (ML Algorithm 21)
  - ● - ARIMA (ML Algorithm 22)

- ● Additional ML techniques:

  - ● - Principal Component Analysis (ML Algorithm 23)
  - ● - Recommendation Engines (ML Algorithm 24)
  - ● - Association Rules (ML Algorithm 25)

- ● Model Selection & Evaluation:

  - ● - Overfitting & Underfitting (Bias-Variance Tradeoff)
  - ● - Cross Validation
  - ● - Hyperparameter Tuning

Structured Query Language (SQL)

Tableau

Deep Learning
- ● Artificial Neural Networks (ANN)
- ● Convolutional Neural Networks (CNN)
- ● Recurrent Neural Networks (RNN)
- ● Long Short-Term Memory Networks (LSTM)

Natural Language Processing (NLP)
- ● Text Preprocessing
- ● Tokenization
- ● Stemming and Lemmatization
- ● Bag of Words and TF-IDF
- ● Word Embeddings (Word2Vec, GloVe)
- ● Sequence Modeling
- ● Named Entity Recognition (NER)
- ● Sentiment Analysis
- ● Topic Modeling
- ● Chatbot Development