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adHOC NETWORKS

Data Science Specialization in Machine Learning & Advance AI
Duration: 3 Months
Fee: 16,500/-+GST

RedHat Enterprise Linux Version RHEL 8 & Ubuntu 18.04

- Understanding Linux
- Installation [Both Hardware & VM]
- Shell Programming (Basic)
- IO redirection & Pipeline
- Tar & Backup with compression
- User Management
- Linux Permissions
- Partitions & LVM (Logical Volume Management)
- Crontab
- SSH Server
- Apache Server
- NFS & Samba Server
- DNS Client

Python

- Getting Started with Python (Both Version 2 & 3)
- Installing Python (Working with IDE & Jupiter Notebook)
- Variables
- For loops, while loops
- Math Operators with Numpy & Math Library
- Conditional Statements
- Strings -Concatenation and repetition, in operator, Indexing, Slices
- Working & Creating Modules
- File Handling
- Socket Programming
- Exception Handling
- Web Scraping
- Connecting with API (Twitter/Github/AWS)
- Math for Data Analysis - Linear Algebra, Matrices, Eigenvectors and their application for Data Analysis.

Machine Learning

Foundation - Getting Started with Machine Learning

- Understanding Machine Learning | Deep Learning & AI
- Difference between Data Analysis & Data Science
- Working with Data Management & Visualization Libraries
  - Pandas
  - Numpy
  - Matplotlib
  - MPLD3
- Supervised ML & its Real time use cases with below listed Algorithms

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- Linear & Logistic regression
- Support Vector Machine [SVM]
- K-Nearest Neighbors - [KNN]
- K-means Clustering
- Decision tree
- Random Forest
- Naive Bayes Classifier
- Using UCI & Kaggle Dataset with all the above algorithms

Advanced Machine Learning

Computer Vision

- Understanding Images & Videos
- Procession Image & Videos with OpenCV & Numpy
- Narrowing to Face Detection on Photos and Live Videos
- Object & Face detection with OpenCV
- Face Recognition with Local Binary Patterns Histogram LBPH & DLIB3
- Object Detection with Tensorflow
- Extracting Text from Image using Amazon Machine Learning
- Creating own Motion Detector
- Using open source Google Tensorflow posenet
- Kairos for face detection & recognition

Deep Learning Overview

- Understanding Natural Language Processing NLP
- Analyzing real time sentiment with NLP
- Using Google Voice engine for automation
- Difference between Textblob & NLP

Advance Artificial Intelligence

- TensorFlow
- Keras
- Pytorch: Deep Learning Framework
- AWS Machine Learning Model
- NLP Advanced and Chatbots
- Advance Computer Vison