



Edu-Vitae
Services
JOIN! LEARN! ACHIEVE!

AI and ML

Dates: 3rd Sept, 2022

Time: 9am-1pm + 2pm-7pm

CONTENTS:

MODULE 1

- INTRODUCTION TO ARTIFICIAL INTELLIGENCE
- APPLICATIONS OF AI & CURRENT TRENDS
- DIFFERENT AI TECHNIQUES
- AI AGENTS
- PEAS ANALYSIS
- AGENT ENVIRONMENT ANALYSIS
- DIFFERENT TYPES OF AI AGENTS
- MACHINE LEARNING
- INTRODUCTION AND APPLICATIONS OF MACHINE LEARNING
- SUPERVISED AND UNSUPERVISED LEARNING
- CLASSIFICATION & REGRESSION PROBLEM
- CLUSTERING, ANOMALY DETECTION
- GETTING STARTED WITH LINEAR REGRESSION
- MATHEMATICS BEHIND LINEAR REGRESSION
- BUILDING LINEAR MODEL
- GRADIENT DESCENT ALGORITHM
- ERROR CORRECTION

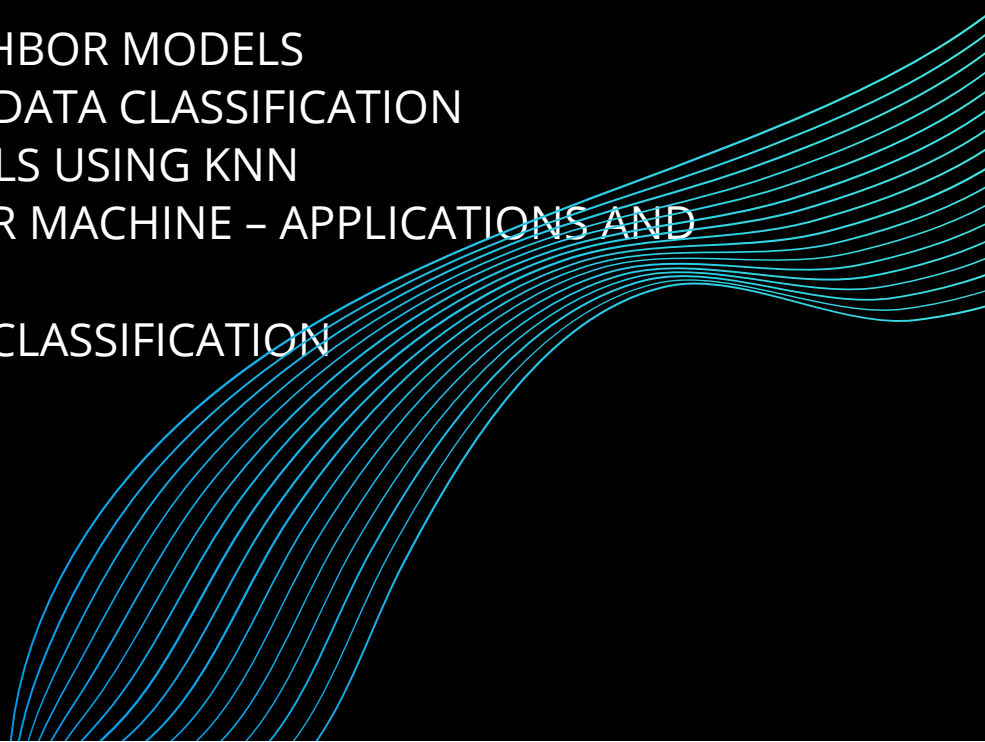
MODULE 1

- GETTING STARTED WITH PYTHON PROGRAMMING
- INSTALLING ANACONDA
- PYTHON VARIABLES, LISTS, TUPLES AND DICTIONARIES
- CONTROL STRUCTURE IN PYTHON
- DEFINING FUNCTIONS IN PYTHON
- USING MODULES AND PACKAGES
- NUMPY FOR DATA COMPUTATION
- MATPLOTLIB FOR DATA VISUALIZATION
- PANDAS FOR DATA EXPLORATION
- USING SCIKIT-LEARN
- CREATING LINEAR REGRESSION MODELS USING SCIKIT-LEARN

MODULE 3

- GETTING STARTED WITH ARTIFICIAL NEURAL NETWORKS
- INTRODUCTION TO NEURONS, WEIGHTS
- ACTIVATION FUNCTION
- INPUT LAYERS, HIDDEN LAYERS AND OUTPUT LAYERS
- SINGLE LAYER PERCEPTRON MODEL
- MULTILAYER NEURAL NETWORK
- BACK PROPAGATION ALGORITHM INTRODUCTION
- PROGRAMMING NEURAL NETWORK USING PYTHON
- BUILDING REGRESSION MODELS USING ANN
- CLASSIFICATION EXAMPLES USING ANN

MODULE 4

- K NEAREST NEIGHBOR MODELS
 - USING KNN FOR DATA CLASSIFICATION
 - BUILDING MODELS USING KNN
 - SUPPORT VECTOR MACHINE – APPLICATIONS AND MATHEMATICS
 - USING SVM FOR CLASSIFICATION
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PROJECTS

- (ALL PROJECTS COVERED WILL BE BASED ON REAL TIME DATA ACCESS OF INTERNET FOR ALL PARTICIPANTS IS MANDATORY)
- CHARACTER RECOGNITION ALGORITHM
- CANCER DIAGNOSTIC ALGORITHM
- IRIS CLUSTERING
- BOSTON HOUSING PRIZES PREDICTION

