AMIT

Master Machine Learning & AI Diploma

ISO 9001

Diploma Overview

AMIT introduces intensive +210 hours diploma paving your way to develop your skills as a professional Data Scientist

Sessions available Offline and Live

World class instructors working in the biggest multinationals

ISO 9001 Certified

Why AMIT ?

- ✓ **+⑫ Years of Experience and still counting**

- ✓ **+15,000 Satisfied Student**

- ✓ **+100 Instructor and Expert**

Accredited By:

ISO 9001:2015

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CISCO Networking Academy Partner

Ministry of Communications and Information Technology

OUR CLIENTS:

What you'll Learn

Project Identification and Problem Framing

- Identify machine learning uses cases to solve and frame a business problem

- Given a problem scenario, determine an appropriate machine learning based solution

Effectively Work with Data

- Identify suitable dataset sources; evaluate relevance and quality

- Handle common data quality issues

- Select the best features for building models

- Perform feature engineering

Modeling Setups

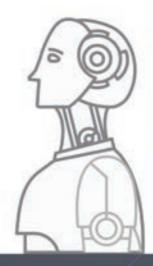- Apply best suitable machine learning based models

What you'll Learn

- Address various use cases for partitioning data

- Employ model efficacy techniques such as overfitting, underfitting, partitioning, hyperparameters tuning and cross-validation to choose the best model that fits our problem.

Evaluate, Understand, Communicate and Deploy

- Use the appropriate metrics to evaluate a model based on the type of the problem.

- Understand the behavior of the model and explain it.

- Describe key areas of documentation that are critical to communicate

- Deploy Models

Why to Study Machine Learning?

Career Chances

Work in the world's greatest multinational companies

High Demand

The demand for machine learning positions is growing rapidly recently

Attractive Salaries

Machine Learning is one of the most highly paid professions

Diploma Topics

Outlines

Intro to AI (5 Hours)

- Intro to Artificial Intelligence
- Intro to Machine Learning- Deep Learning?
- Data Science vs Data Analysis vs Data Engineering
- Different jobs (Data Scientist –Data Analyst –Data Engineer – ML-Ops Engineer-ML Engineer)
- Applications of (Artificial Intelligence-Machine Learning -Deep Learning)
- Practical AI use cases

Level 1 Python Basics (20 Hours)

- Intro to python
- Why python for data science?
- Anaconda
- Virtual Environment
- Conda & pip package managers
- Jupyter Notebook and spyder IDE
- Python basics syntax, comments, variables
- data types
- Print statement
- User inputs
- Important Modules: Datetime, json, math, random and NumPy
- Strings, String methods
- Operators, Arithmetic, Assignment, Comparison, Logical, Identity, Membership, Bitwise
- Python Data structures (Arrays, Lists, Tuples, sets, Dictionaries)
- Comparison, Control Statements, If else pass
- Loops
- Functions

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- Lambda function
- Built-in functions
- Scope global and local
- Try except
- File handling .txt files
- Object-Oriented Programming (OOP)
- Classes & Objects
- Data Hiding and Encapsulation
- Inheritance
- Exceptions

Level 2 Data Science Preparation (30 Hours)

- Linear Algebra
- Vector's operations
- Matrix operations
- Eigen values and vectors
- Different types of products
- Probability and statistics and calculus
- Differentiation and integration
- Sampling & Population
- Mean, Median and Mode
- Different Distributions
- Standard Deviation and Variance
- Correlation and covariance
- Conditional probability
- Prior and posterior
- Central Limit Theorem
- Python for Data Science
- NumPy
- Pandas

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- Matplotlib
- Dealing With Data (Data Preprocessing)

Level 3 Machine Learning (60 Hours)

- Introduction to machine learning
- [Linear Regression] as a Regression Model
- [logistic regression] as a Classification Model
- [KNN] as a Classification and Regression Model
- [SVM] as a Classification and Regression Model
- Tree Based Algorithms [Decision Trees and Random Forests]
- Ensemble Methods
- Association rule Learning
- Naïve Bayes
- Unsupervised Learning [K-means]
- Unsupervised Learning [PCA]
- Unsupervised Learning [Hierarchical clustering]
- Unsupervised Learning [DBscan]
- Model selection and evaluation

Level 4 Deep Learning (80 Hours)

- Artificial Neural Network
- Convolutional Neural Network and Computer Vision
- Sequence Models + NLP

Level 5 ML-ops and production (15 Hours)

- Model Deployment
- Industry sessions

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