



DATA SCIENCE TRAININGS

Machine Learning for Finance Professionals
Virtual Class | 2pm - 5.30pm

HRDF CLAIMABLE

for employers registered with HRDF

Machine learning is a technique of data analysis that automates analytical model building. It is a subset of artificial intelligence (AI) based on the concept that systems can learn from data, identifying patterns and making decisions with minimal human intervention.

Machine learning algorithms build a mathematical model based on sample data, known as "training data", in order to make predictions or decisions. Machine learning algorithms are used in a wide variety of applications, including in risk management in banks for credit evaluation and in marketing to identify target customers etc.

COURSE HIGHLIGHTS

1 Introduction

- What is data science
- What is AI, ML, DL
- Relationship between data science and AI, ML, and DL
- Types of learning
- Supervised Learning
- Supervised Learning Use Cases
- Unsupervised Learning
- Unsupervised Learning Use Cases

2 Features Engineering

- One-Hot Encoding
- Binning
- Normalization
- Standardization
- Dealing with Missing Features
- Data Imputation Techniques

3 Supervised Learning (Regression)

- Introduction
- Linear regression
- Gradient Descent
- Evaluation Metrics
- Use Case

4 Supervised Learning (Classification)

- Introduction
- Logistic Regression
- Support Vector Machine
- K Nearest Neighbors
- Decision Tree
- Evaluation Metrics
- Use Case

5 Supervised Learning (Ensemble Learning)

- Boosting
- Random Forest
- Bagging
- Gradient Boosting
- Use Case

6 Practical Issues

- Learning Algorithm Selection
- Cross Validation
- Three Sets
- Hyper-parameter Tuning
- Random Search
- Grid Search
- Under fitting and Over fitting
- Regularization
- Handling Imbalanced Datasets
- AI ethics

7 Capstone Project

NOTES

- The programming to be used is Python
- Python Beginner Level is required
- Knowledge with Numpy and Pandas in Python is highly recommended

CERTIFICATE

All participants will receive a Certificate of Completion upon **achieving full class attendance and completion of Evaluation Form.**

FEE STRUCTURE

CATEGORY	FEE (RM)
INCEIF Students	300
INCEIF Alumni	500
Students from other institutions	600
Professional/Academic	800

**The above fees exclude the 6% Service Tax*

ENQUIRIES

For any enquiries, kindly contact **Ms Rohaya**
Email: rohaya@inceif.org
Contact No.: +603 7651 4016

TRAINERS

MUHAMMAD SAMER SALLAM



Muhammad Samer Sallam is a Data Scientist with a great passion for learning new intelligent algorithms, strong problem solving skills, and solid expertise in AI, ML, DL, NLP, network analysis, OOP and micro-services design and

implementation to create production-ready, smart applications and creative dashboards. Professional trainer and public speaker in AI and data science fields with great enthusiasm and keen interest in spreading and sharing knowledge with people. He has a bachelor of computer engineering and automation and a Master of computer and information engineering.

KINAN SALIM



Kinan is data enthusiast. He is an Assistant Professor at the School of Graduate and Professional Studies, INCEIF. He has engaged in a variety of projects and provided services to leading institutions in finance and Islamic

finance. Early in his career, he served in the capacity of Head of Corporate Finance in Cham Islamic bank until 2011. He intends to focus on Islamic digital economy, big data analytics amongst other research areas.

CLASS SCHEDULE

Every **Sunday** Duration: **4 weeks (12 hours)**

Week	Date	Time
1	18 October 2020	2 pm – 5:30 pm
2	25 October 2020	2 pm – 5:30 pm
3	1 November 2020	2 pm – 5:30 pm
4	8 November 2020	2 pm – 5:30 pm