

Python for AI & Machine Learning Short Course

40 · R14,995

Move beyond writing scripts and start building intelligent systems. This 40-hour course takes you from the fundamentals of supervised and unsupervised learning through to deploy...

40

Hours of Training

R14,995

Course Fee

5 Days

Full-Time Option

JHB · Online

Nationwide

COURSE CURRICULUM

What You'll Learn

The Machine Learning Landscape

Types of machine learning (supervised, unsupervised, reinforcement), when to use each, and a comp...

Data Preparation with NumPy & Pandas

Arrays, DataFrames, data cleaning, handling missing values and outliers, feature encoding, scalin...

Regression Models

Linear regression, polynomial regression, and regularisation techniques (Ridge and Lasso). Unders...

Classification

Logistic regression and decision boundaries, evaluation metrics (accuracy, precision, recall, F1,...

Support Vector Machines (SVM)

Maximum-margin classification, the kernel trick, linear and non-linear SVMs — and when SVMs outpe...

Decision Trees & Random Forests

Building and visualising decision trees, controlling overfitting with pruning, bagging, random fo...

Model Evaluation & Hyperparameter Tuning

Cross-validation, grid search and randomised search, learning curves, and strategies for avoiding...

Dimensionality Reduction & Clustering

PCA for feature reduction and visualisation, K-Means and DBSCAN clustering — with practical use c...

Introduction to Neural Networks

How perceptrons and activation functions work, building a simple neural network with Keras/Tensor...

AI & LLM Integration — Capstone Project

Calling the OpenAI and Anthropic APIs from Python, prompt engineering fundamentals, embeddings an...

