

WOTMERS TECHNOLOGIES LTD

Data Science

Transform Raw Data into Powerful, Predictive Intelligence

Duration	Level	Course Fee	Delivery
14 Weeks (Full-Time) / 28 Weeks (Part-Time)	Beginner to Intermediate	NGN 100,000	In-Person Abuja & Kaduna

Course Overview

The Data Science programme teaches students to extract meaningful insights from complex datasets using statistical analysis, machine learning, and data visualisation. Starting from Python programming fundamentals, students progress through exploratory data analysis, supervised and unsupervised learning, deep learning, and production deployment of models. The curriculum is designed to mirror real-world industry workflows, with hands-on projects drawn from finance, healthcare, agriculture, and e-commerce sectors.

Course Curriculum

Week	Topic	What You Will Learn
Wk 1	Python for Data Science	Python syntax, data types, control flow, functions, OOP, Jupyter notebooks, virtual environments
Wk 2	Data Manipulation with Pandas	DataFrames, series, indexing, merging, groupby, handling missing values, data cleaning
Wk 3	Mathematics for Data Science	Linear algebra, calculus basics, probability, distributions, Bayes theorem, statistical inference
Wk 4	Exploratory Data Analysis (EDA)	Descriptive statistics, outlier detection, correlation analysis, visualisation-driven insight
Wk 5	Data Visualisation	Matplotlib, Seaborn, Plotly — charts, heatmaps, pair plots, dashboards, storytelling with data
Wk 6	Machine Learning Fundamentals	Supervised vs unsupervised learning, train/test split, cross-validation, bias-variance tradeoff
Wk 7	Regression Algorithms	Linear/polynomial regression, Ridge/Lasso, evaluation metrics (RMSE, MAE, R2), feature engineering
Wk 8	Classification Algorithms	Logistic regression, Decision Trees, Random Forest, SVM, KNN, confusion matrix, ROC/AUC

Wk 9	Unsupervised Learning	K-Means clustering, DBSCAN, PCA, dimensionality reduction, anomaly detection
Wk 10	Natural Language Processing (NLP)	Text preprocessing, TF-IDF, sentiment analysis, named entity recognition, word embeddings
Wk 11	Deep Learning & Neural Networks	Perceptrons, backpropagation, CNNs, RNNs, TensorFlow/Keras, model tuning
Wk 12	Model Deployment	Flask/FastAPI REST APIs, Streamlit dashboards, Docker basics, model versioning with MLflow
Wk 13	Big Data & Cloud Tools	Introduction to Spark, AWS SageMaker, Google Colab Pro, data pipelines and ETL basics
Wk 14	Capstone Project & Career Prep	End-to-end data science project, GitHub portfolio, data science interview preparation

Learning Outcomes

By the end of this course, students will be able to:

- ✓ Write clean, efficient Python code for data tasks
- ✓ Build, tune, and evaluate machine learning models
- ✓ Apply NLP techniques to text-based problems
- ✓ Deploy ML models as REST APIs or web apps
- ✓ Clean, transform, and explore complex datasets
- ✓ Create insightful data visualisations and dashboards
- ✓ Design and train basic neural networks
- ✓ Communicate findings clearly to non-technical stakeholders

Tools & Technologies Covered

Python	Pandas	NumPy	Scikit-learn
TensorFlow/Keras	Matplotlib	Seaborn	Jupyter
Flask	Docker	Git	SQL

Career Opportunities

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|------------------|-----------------|----------------------|
| ➤ Data Scientist | ➤ ML Engineer | ➤ AI Researcher |
| ➤ NLP Engineer | ➤ Data Engineer | ➤ Analytics Engineer |

Ready to enrol? Visit wotmerstechnologies.com/register.html | Email: wotmersinfo@gmail.com | WhatsApp: +234
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