WOTMERS TECHNOLOGIES LTD

Artificial Intelligence

Design, Build, and Deploy Intelligent Systems of the Future

Duration	Level	Course Fee	Delivery
16 Weeks (Full-Time) / 32 Weeks (Part-Time)	Intermediate (Python knowledge recommended)	Contact Us for Fee	In-Person | Abuja & Kaduna

Course Overview

The Artificial Intelligence programme provides an in-depth exploration of the techniques and frameworks behind modern AI systems. Students study classical AI, machine learning, deep learning, computer vision, natural language processing, reinforcement learning, and responsible AI. The programme is project-intensive with each student building a complete AI application by graduation. This course is ideal for students who have completed the Data Science programme or have prior Python experience.

Course Curriculum

Week	Topic	What You Will Learn
Wk 1	**Foundations of AI**	History of AI, intelligent agents, problem-solving, state-space search, BFS/DFS, A* algorithm
Wk 2	**Knowledge Representation**	Logic, propositional & predicate calculus, expert systems, ontologies, Bayesian networks
Wk 3	**Machine Learning Review**	Supervised/unsupervised recap, scikit-learn, pipelines, feature engineering, model evaluation
Wk 4	**Deep Learning Foundations**	Neural networks, activation functions, backpropagation, loss functions, optimisers, Keras
Wk 5	**Convolutional Neural Networks (CNN)**	CNN architecture, pooling, convolutions, image classification, transfer learning (VGG, ResNet)
Wk 6	**Recurrent Neural Networks & LSTMs**	Sequence modelling, LSTM/GRU, time series forecasting, text generation
Wk 7	**Transformers & Attention Mechanism**	Attention mechanism, transformer architecture, BERT, GPT, fine-tuning pre-trained models
Wk 8	**Natural Language Processing (Advanced)**	Named entity recognition, question answering, text summarisation, chatbot development

Wk 9	**Computer Vision**	Object detection (YOLO), image segmentation, OpenCV, real-time video processing, face recognition
Wk 10	**Reinforcement Learning**	Markov decision processes, Q-learning, Deep Q-Networks, policy gradient methods, OpenAI Gym
Wk 11	**Generative AI**	GANs, VAEs, Stable Diffusion basics, LLM APIs (OpenAI, Anthropic), prompt engineering
Wk 12	**AI at Scale & MLOps**	Model monitoring, data drift, MLflow, Weights & Biases, Kubernetes basics, A/B model testing
Wk 13	**Responsible AI & Ethics**	Bias and fairness, explainability (SHAP, LIME), AI regulations, NDPR/GDPR, AI governance
Wk 14	**Capstone Part 1 — Design**	Problem definition, dataset curation, architecture design, literature review, proposal presentation
Wk 15	**Capstone Part 2 — Build**	Full model development, evaluation, tuning, integration into a user-facing app or API
Wk 16	**Capstone Part 3 — Deploy & Present**	Cloud deployment, demo day presentation, portfolio documentation, career preparation

Learning Outcomes

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

- ✓ Understand the theoretical foundations of modern AI
- ✓ Develop computer vision applications using CNNs
- ✓ Apply reinforcement learning to sequential decision problems
- ✓ Deploy AI models with MLOps best practices
- ✓ Build and train deep neural networks for various tasks
- ✓ Create NLP pipelines and work with transformer models
- ✓ Use generative AI tools and APIs responsibly
- ✓ Design AI systems with fairness, transparency, and ethics

Tools & Technologies Covered

Python	**TensorFlow**	**PyTorch**	**Scikit-learn**
OpenCV	**HuggingFace**	**LangChain**	**OpenAI API**
MLflow	**Docker**	**Kaggle**	**Google Colab**

Career Opportunities

➤ AI Engineer	➤ ML Engineer	➤ Computer Vision Engineer
➤ NLP Engineer	➤ AI Researcher	➤ Generative AI Developer
➤ AI Product Manager		

Ready to enrol? Visit wotmerstechnologies.com/register.html | Email: wotmersinfo@gmail.com | WhatsApp: +234 8125604035