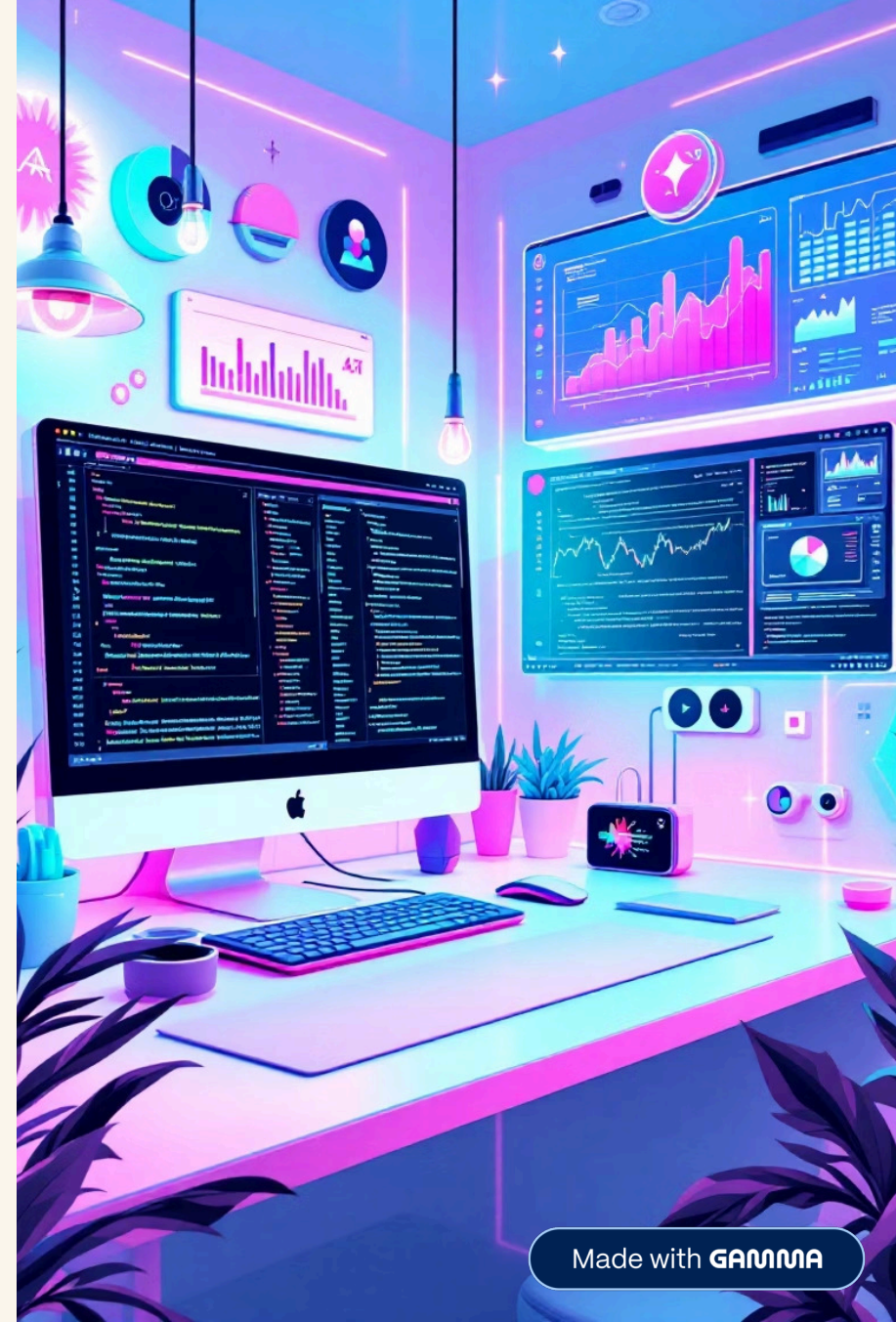# Full Stack Data Science, AI & ML Course

DataXSchool Learning Centre

Master the complete data science lifecycle with AI & ML expertise

Why Full Stack Data Science & AI?

Industry Reality

90% of ML project failures stem from poor deployment, not modeling (McKinsey 2024)

Market Demand

Industry demands professionals skilled in end-to-end data solutions, not just algorithms

Our Solution

DataXSchool equips you with skills from data wrangling to production-grade AI systems

Bridge the skills gap between theory and real-world application

Module 1: Foundations & Software Engineering for Data

☐ **Programming Mastery**

Python programming essentials & advanced concepts for data professionals

☐ **System Administration**

Linux, Bash scripting, SQL & database management for scalable solutions

☐ **Development Tools**

Version control with Git & GitHub, API development with FastAPI

☐ **Practical Application**

Hands-on labs: Build data pipelines, deploy containerized apps with Docker

Module 2: Data Analysis & Visualization

01

Data Manipulation

Master NumPy & Pandas for efficient data processing and transformation

02

Insight Discovery

Exploratory Data Analysis (EDA) techniques to uncover hidden patterns

03

Visual Storytelling

Advanced visualization with Matplotlib, Seaborn, and interactive Plotly

04

Real Projects

Customer segmentation, sales trend analysis with business impact

ⓘ Transform raw data into compelling visual narratives that drive business decisions

Module 3: Machine Learning Fundamentals

Algorithm Mastery

Supervised & unsupervised learning: Linear/Logistic Regression, SVM, Random Forest, K-Means clustering

Data Engineering

Feature engineering techniques & handling imbalanced datasets with SMOTE and advanced sampling

Model Excellence

Comprehensive evaluation metrics & explainability tools including LIME and SHAP for transparent AI

Applied Project: Develop a credit scoring model with explainable AI components for real-world deployment

Module 4: Deep Learning & Neural Networks

1   Neural Architectures

Master CNNs, RNNs, LSTMs, and cutting-edge Transformer models

2   Specialized Applications

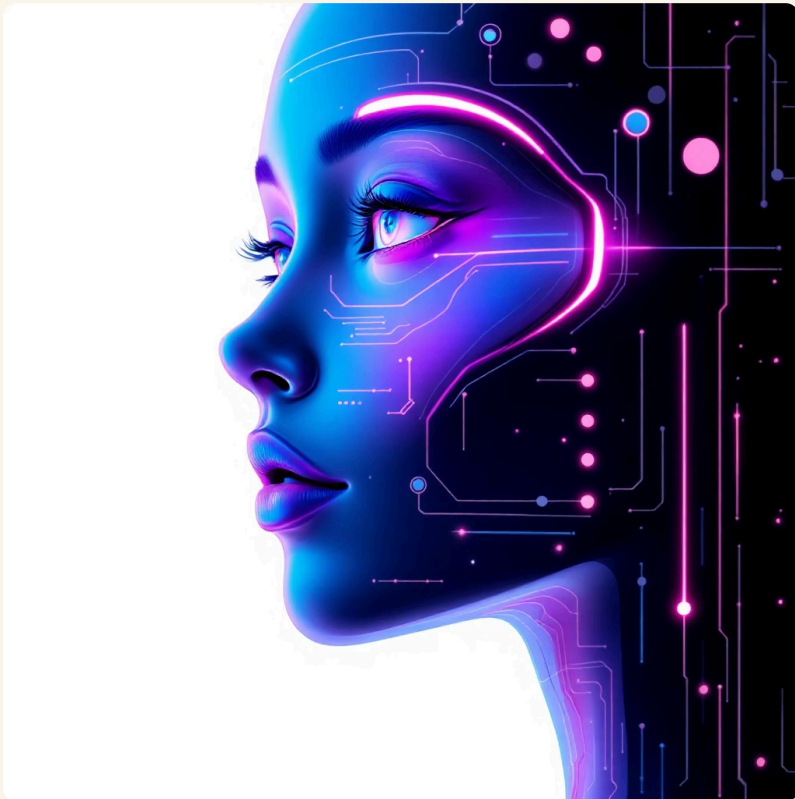Computer vision, NLP, and model compression techniques for production

3   Framework Expertise

Hands-on experience with TensorFlow, Keras, and PyTorch ecosystems

Capstone Project: Build and deploy an advanced image classifier or sentiment analyzer with real-world performance

Module 5: Natural Language Processing & Generative AI

NLP Foundations

Text preprocessing, advanced embeddings, and state-of-the-art language models

Generative AI

Conversational AI, prompt engineering, and GenAI tools including ChatGPT and GPT-4

Industry Applications

Automated customer support systems and financial sentiment analysis solutions

Hands-on Project: Develop a sophisticated chatbot or advanced text summarization tool ready for production deployment

Module 6: MLOps & Model Deployment

Containerization

Productionizing ML models with Docker containers and Kubernetes orchestration

Cloud Deployment

Strategic deployment across AWS, Azure, and GCP with scalability best practices

1   **2**   **3**   **4**

Pipeline Automation

CI/CD pipelines, continuous monitoring, and automated model versioning systems

Production System

End-to-end ML system from data ingestion to live API with monitoring

Learning Experience & Career Support

📄

Interactive Learning

Live instructor-led sessions combined with flexible self-paced materials for optimal knowledge retention

Real-World Projects

Industry-relevant projects with personalized feedback from experienced data science professionals

Expert Mentorship

Access to expert mentors and a thriving global alumni network for continuous learning and support

Career Acceleration

Dedicated career coaching and comprehensive job placement assistance to fast-track your success

Transform Your Career

6-Month Journey

Immersive program designed for immediate industry impact and career transformation

Production Portfolio

Build impressive portfolio of production-ready AI & ML projects that employers demand

Future-Ready Skills

Become a Full Stack Data Scientist equipped to solve tomorrow's most complex challenges

Enroll today and start your journey to data science mastery!

Enroll Now   Learn More