AiGrad: Data Science with AI

Beginner to Industry-Ready Curriculum

MODULE 1: Foundations of Data Science

- Introduction to Data Science & AI landscape

- Python for Data Science

- Working with Jupyter Notebooks

- Data types, variables, conditionals & loops

Tools: Python, Jupyter, Google Colab

MODULE 2: Data Handling & Cleaning

- Data wrangling with Pandas

- Handling missing values & outliers

- Working with real-world datasets (CSV, JSON, APIs)

Tools: Pandas, NumPy, OpenAIs File Parser

MODULE 3: Data Visualization

- Intro to data storytelling

- Plotting with Matplotlib & Seaborn

- Interactive dashboards

Tools: Matplotlib, Seaborn, Plotly

MODULE 4: Statistics & Probability

- Descriptive stats

- Distributions & sampling

- Hypothesis testing

Tools: Python, SciPy, ChatGPT for concept clarity

MODULE 5: Machine Learning with AI Support

AiGrad: Data Science with AI

Beginner to Industry-Ready Curriculum

- Linear & Logistic Regression

- Decision Trees, KNN

- Model evaluation techniques

Tools: Scikit-learn, ChatGPT for model debugging

MODULE 6: Projects

- - Build your own AI-powered Career Recommender

- - Sales Prediction for an eCommerce brand

- - Dashboard for real-time Twitter trends

Tools: GPT-4, Hugging Face models, LangChain (intro)

BONUS: Career & AI Productivity

- How to use ChatGPT as a daily assistant

- Build a strong LinkedIn & resume with AI help

- Getting interview-ready with mock tests

Tools: ChatGPT, Resume AI tools