



CITY AND ISLINGTON
COLLEGE

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Westminster
Kingsway College

The College of
Haringey, Enfield
and North East London



Capital
City
College
Training

AI Essentials with Python: From Basics to Breakthroughs (Digital Skills Academy)

Unlock your potential in the world of artificial intelligence with our beginner-friendly AI course, crafted for those eager to dive into the future of tech.

Our curriculum breaks down the essentials of AI in a fun and engaging way, making it perfect for anyone starting from scratch. Whether you're aiming to launch a new career or just curious about AI, this course gives you the skills and confidence to get started. With hands-on projects, interactive lessons, and real-world examples, you'll turn complex AI topics into exciting learning experiences.

Join a vibrant community of learners and tap into a treasure trove of resources, including easy-to-follow tutorials, industry insights, and expert support. By the end of the course, you'll have a solid understanding of machine learning, neural networks and data analysis, ready to impress with your new skills.

WHAT WILL I STUDY?

Module 1: AI Essentials with Python

- AI Basics with Python: Understanding AI through Python examples.
- Setting Up the Python Environment: Tools and libraries for AI (e.g., Anaconda, Jupyter Notebooks).
- Python for AI: Basics of Python programming relevant to AI.

Module 2: Data Handling with Python

- Data Manipulation in Python: Using Pandas for data handling.
- Data Visualization with Python: Introduction to Matplotlib and Seaborn.
- Python for Data Cleaning and Pre-processing: Techniques in Python for preparing data.

Module 3: Machine Learning with Python

- Machine Learning Concepts: Overview with Python code examples.
- Supervised Learning in Python: Implementing basic regression and classification models.
- Unsupervised Learning in Python: Basics of clustering and dimensionality reduction.

Module 4: Deep Learning with Python

Start Date: 27 August 2024

Day: Tuesdays and Thursdays

Time: 18:00 - 21:00

Duration: 7 weeks

Venue: Online



- Introduction to Neural Networks: Building simple networks with Python.
- TensorFlow and Keras: Getting started with deep learning in Python.
- Building Your First Deep Learning Model: A step-by-step guide.

Module 5: Practical AI Projects

- Project 1: Basic AI Application: Building a simple AI model to solve a problem.
- Project 2: Data Science Project: End-to-end data science project using Python.
- Code Reviews and Best Practices: Writing efficient and readable Python code for AI.

Module 6: Ethical AI and Career Path

WHAT WILL I NEED?

Basic knowledge in programming is required.

You will need to be eligible to study in the UK. Upon enrolment, you will be asked to upload residency and income documents for college funding purposes.

WHAT CAN I DO AFTER?

Upon successful completion of the course, you can progress to further study in this area.

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