



**Ed-Tech**  
A F R I C A

# AI & ML WITH PYTHON

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## 3 MONTHS





# Ed-Tech

A F R I C A

Transforming education  
through technology



# AI & ML with Python

A course designed for a comprehensive and a focused approach towards overall development and learning with all powerful Python.

## Curriculum Index

### \* **MODULE -1 PYTHON**

1. Introduction and Basics of Python
2. Operators
3. Conditional Statements
4. While Loops
5. Lists
6. Strings
7. For Loop
8. Functions
9. Dictionary
10. Tuples
11. Set
12. Object-Oriented Programming
13. File Handling
14. Exception Handling
13. Git and GitHub

### \* **Module - 2 Python Toolkit & Data Visualization**

1. NumPy
2. Pandas
3. Matplotlib

### \* **Module - 4 Artificial Intelligence**

1. Introduction
2. Applications
3. Types of Artificial Intelligence

### \* **Module - 5 Machine Learning Introduction**

1. Introduction of Machine learning
2. Environment setup
3. Application
4. Types of Machine learning

### \* **Module - 6 Data Preprocessing**

### \* **Module - 7 Supervised Learning**

### \* **Module - 8 Regression Algorithms**

### \* **Module - 9 Unsupervised learning**

### \* **Module - 10 Association Rule Mining**

### \* **Module - 14 Feature Modeling and Model Deployment**

### \* **Module - 15 Projects**

1. Hotel Prediction
2. Minist Dataset
3. Social Network Ads
4. Teach a Taxi
5. Loan prediction

The image features a central graphic of a glowing purple square with the letters 'AI' in white. This square is surrounded by a complex network of blue and white circuit lines and dots, resembling a microchip or a neural network. The background is a dark blue gradient with more circuit patterns.

## Aims and Objectives

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To build a basic understanding and learn Artificial Intelligence, Deep Learning, Machine Learning with a comprehensive course that enables you to use ML and AI for practical approach.

This course will help you fulfill your dream of learning and will prepare for the opportunity of being a leading choice for any job that requires you to be a professional in the provided course.

Since this course makes you learn from basics, be prepared to explore and express the newest of knowledge and feel the motivation and desire to learn something new with this course.

## JOB OPPORTUNITIES

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- \* **Robotics Scientist**
- \* **AI Data Analyst**
- \* **Software Engineer**
- \* **Big Data Engineer**
- \* **Research Scientist**
- \* **Business intelligence Developer**

## What is AI & ML?

Artificial intelligence (AI) refers to the simulation of human intelligence in machines that are programmed to think like humans and mimic their actions. The term may also be applied to any machine that exhibits traits associated with a human mind such as learning and problem-solving.

AI systems will typically demonstrate at least some of the following behaviors associated with human intelligence: planning, learning, reasoning, problem solving, knowledge representation, perception, motion, social intelligence.

**Machine learning (ML)** is a discipline of artificial intelligence (AI) that provides machines with the ability to automatically learn from data and past experiences while identifying patterns to make predictions with minimal human intervention.

### AI & ML examples :

- Goggle Maps
- Smart Assistant
- Snap chat Filters
- Self-driving Cars
- Wearables
- Facial recognition
- Product recommendations
- Email automation and spam filtering



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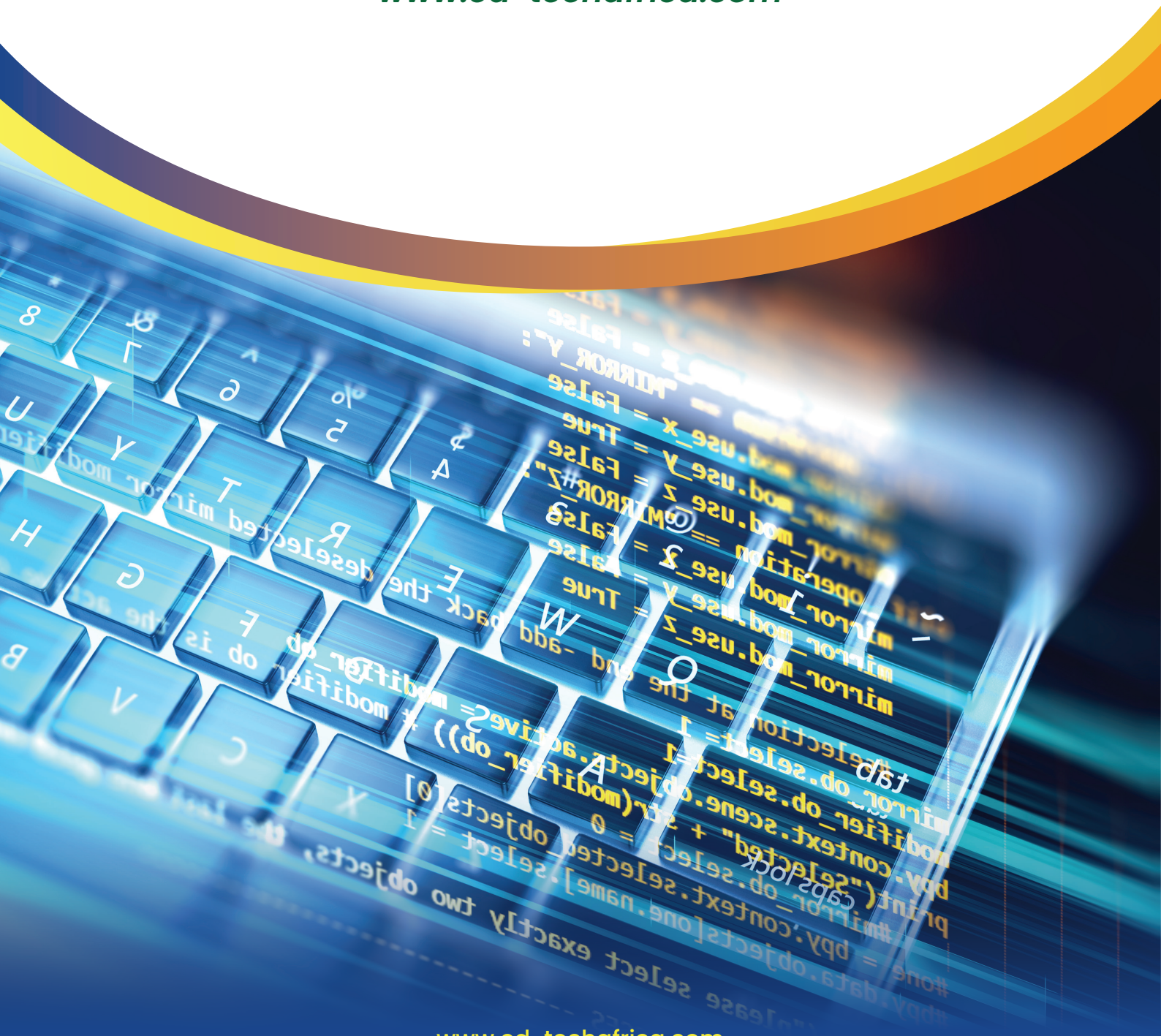
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