

## EXECUTIVE CERTIFICATION IN APPLIED MACHINE LEARNING & ARTIFICIAL INTELLIGENCE

Step into a future-ready career with a comprehensive certification that blends core machine learning with cutting-edge AI applications. This program is designed for learners with basic Python knowledge who want to move into practical, industry-relevant AI work. Through structured modules and real-world datasets, you will learn to design, build, and deploy intelligent systems that create real business impact.



# UNLOCK THE WORLD OF ARTIFICIAL INTELLIGENCE

Artificial Intelligence is reshaping every industry—from finance and marketing to healthcare and retail. In this course, you will learn how AI systems think, learn, and make decisions using data. Each module is packed with hands-on activities that turn complex concepts into easy, practical learning. By the end, you will not just understand AI—you will be able to build it.

## WHAT YOU'LL LEARN

You will build strong foundations in data handling, visualization, and exploratory data analysis to confidently work with real-world datasets. Step by step, you will master key machine learning algorithms, deep learning architectures, NLP workflows, and modern generative AI tools. The focus is on application: every concept is tied to practical examples, use cases, and mini-projects. By the end, you will be ready to take on real AI projects independently.

Month 1

Weeks 1-2

## PYTHON & DATA ANALYSIS REFRESHER

Refresh Python, NumPy, Pandas, and visualization skills to build a strong base for machine learning. Work on datasets like sales records and Titanic data to practice cleaning, transformation, and EDA. This ensures every learner starts the ML journey with confidence, regardless of their academic background.

Weeks 3-4

## MACHINE LEARNING FOUNDATIONS

Learn what machine learning is, where it is used, and how the end-to-end ML pipeline works. Build regression and classification models using algorithms like Linear/Logistic Regression, Decision Trees, Random Forests, SVM, and more.



Month 2

Weeks 5-7

## SUPERVISED & UNSUPERVISED LEARNING

Go deeper into supervised learning and then unlock unsupervised techniques like clustering, dimensionality reduction, association rules, and anomaly detection. Identify customer segments, detect fraud, and uncover hidden patterns in data using real business-like case studies. These weeks help you think like a data scientist working on real organizational problems.

Weeks 8

## MODEL EVALUATION & OPTIMIZATION

Go deeper into supervised learning and then unlock unsupervised techniques like clustering, dimensionality reduction, association rules, and anomaly detection. Identify customer segments, detect fraud, and uncover hidden patterns in data using real business-like case studies. These weeks help you think like a data scientist working on real organizational problems.





Month 3

Weeks 9-10

## ARTIFICIAL NEURAL NETWORKS & DEEP LEARNING

Start with the basics of neurons, layers, activation functions, and loss functions to build your first ANN. Then advance to deep learning architectures like CNNs and RNNs using TensorFlow and Keras. You will work on use cases such as, time-series forecasting, and real-world prediction tasks that showcase the true power of deep learning.

Weeks 11-12

## NATURAL LANGUAGE PROCESSING (NLP)

Learn how machines understand and process text using NLP pipelines and libraries. Perform tokenization, cleaning, lemmatization/stemming, and build models for sentiment analysis and text classification. Use Twitter, Amazon, or review-style datasets to extract insights from opinions, feedback, and unstructured text—an essential skill in the age of digital communication.





## Month 4

Weeks 13-14

# GENERATIVE & AGENTIC AI

Explore the most exciting frontier of AI: large language models, generative models, and autonomous AI agents. Learn prompt engineering techniques to get the best out of tools like LLMs, and understand how agentic AI can perform multi-step tasks automatically. Alongside, you will explore responsible and ethical AI practices, including fairness, transparency, and privacy.

Weeks 15

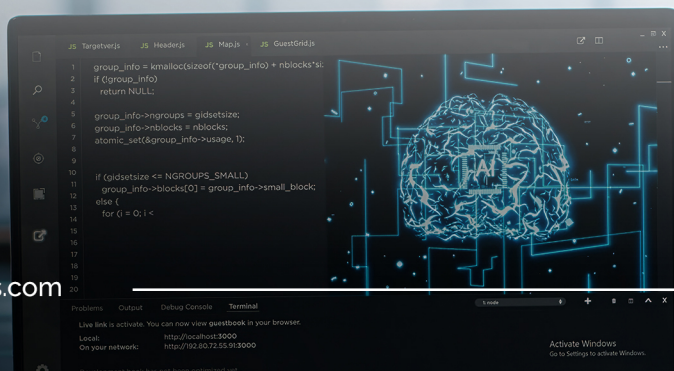
# CAPSTONE PROJECT

Apply everything you've learned in a single end-to-end project that simulates a real industry problem. You will choose a dataset, perform preprocessing, build and tune models, and create meaningful visualizations or dashboards. The project concludes with a structured report and presentation, giving you a portfolio piece to showcase to employers.

Weeks 16

# CAREER & PROFILE BUILDING

Get guided support to transition your new skills into opportunities. This includes CV and LinkedIn optimization, GitHub profile setup, and mock interview practice focused on data science and AI roles. By the end, you will not only have skills and projects but also a professional profile that reflects them.





## WHY ENROL IN THE COURSE?

This program is designed to make you job-ready, not just concept-ready. You learn with a clear structure, real datasets, and guided projects that mirror industry expectations. With a strong blend of technical depth, practical application, and career-focused support, this certificate helps you stand out in a competitive AI job market.

Call For Enquiry

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