

# Hands-On AI & ML Master



## COURSE OBJECTIVE

This course aims to equip participants with practical skills in Python, Artificial Intelligence (AI), and Machine Learning (ML) through an intensive 240-hour program. It includes hands-on projects, ethical considerations, and communication training to prepare graduates for roles such as Data Scientist or Machine Learning Engineer.

- ▶ **PROGRAMMING LANGUAGE:** Python
- ▶ **LIBRARIES & FRAMEWORKS:** NumPy, pandas, Matplotlib, Seaborn, TensorFlow, Keras, PyTorch, scikit-learn, NLTK, spaCy
- ▶ **TOOLS:** Jupyter Notebooks, Google Colab
- ▶ **VERSION CONTROL:** GIT
- ▶ **DATABASE:** SQL

## LEARNING OUTCOMES

- ▶ Proficiency in collecting, cleaning, and preprocessing data, including handling missing values and outliers.
- ▶ Skilled in Python, utilizing libraries like NumPy and pandas for data manipulation and analysis.
- ▶ In-depth understanding of various ML algorithms, including regression, classification, clustering, and dimensionality reduction.
- ▶ Proficiency in improving model accuracy.
- ▶ Understanding the impact of features on model performance, including feature selection and engineering.
- ▶ Proficient at creating informative visualizations using Matplotlib and Seaborn.
- ▶ Effective communication of insights through charts and graphs.
- ▶ Capable of independently and collaboratively solving complex data problems.

## CAREER OUTCOME

- ▶ Data Analyst
- ▶ Machine Learning Engineer
- ▶ Senior Data Scientist
- ▶ Machine Learning Researcher
- ▶ Junior Data Scientist
- ▶ Data Scientist
- ▶ Data Science Consultant
- ▶ Business Intelligence (BI) Analyst