

# Artificial Intelligence & Machine Learning Certificate Course

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**SKYREK**  
ACADEMY

# About The Instructor

- **Industry Experience:** A seasoned Software Engineer with a degree from SLIIT, bringing deep, practical knowledge from real-world industrial projects.
- **Proven AI & ML Expertise:** Successfully delivered over 100 diverse Artificial Intelligence and Machine Learning projects, showcasing a strong command of cutting-edge technology.
- **Effective Teaching Track Record:** Combines hands-on technical skill with a proven ability to effectively teach and mentor aspiring developers for careers in technology.





# Orientation Program

- Welcome & Course Overview
- Python Fundamentals
- Environment Setup
- What is AI & Machine Learning?
- Our First Sample Project
- Using AI Tools for Help
- Q&A and Next Steps



# Prompts and Prompt Engineering

- what is prompt engineering ?
- Elements of a prompts
- Types of prompts
- examples of using ChatGpt using quality Prompts





# AI tools for learning IT

- Chat GPT
- Google AI Tools
- AI for Coding
- Colab for AI
- Other tools



# Introduction to AI & Machine Learning

- What is AI ML ?
- Types of Machine Learning
- How machine learning works
- Examples for Machine Learning using real world scenarios
- Simple Machine Project

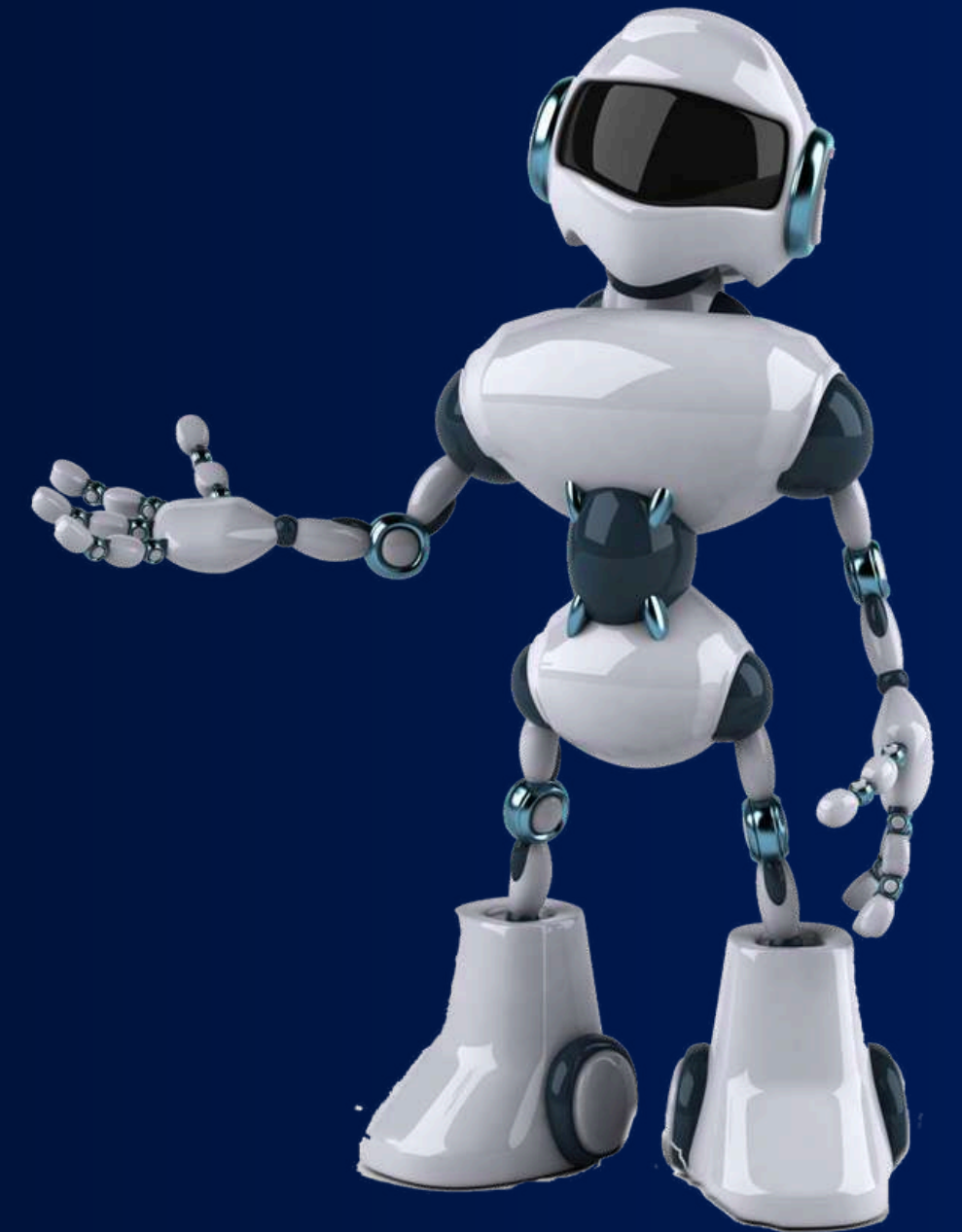




# Linear and Logistic Regression

*These are fundamental algorithms that provide a great introduction to the core concepts of modeling, training, and evaluation*

- Regression
- Prediction
- Classification (Binary and multi)
- 2 Sample Projects



# Supervised Machine Learning

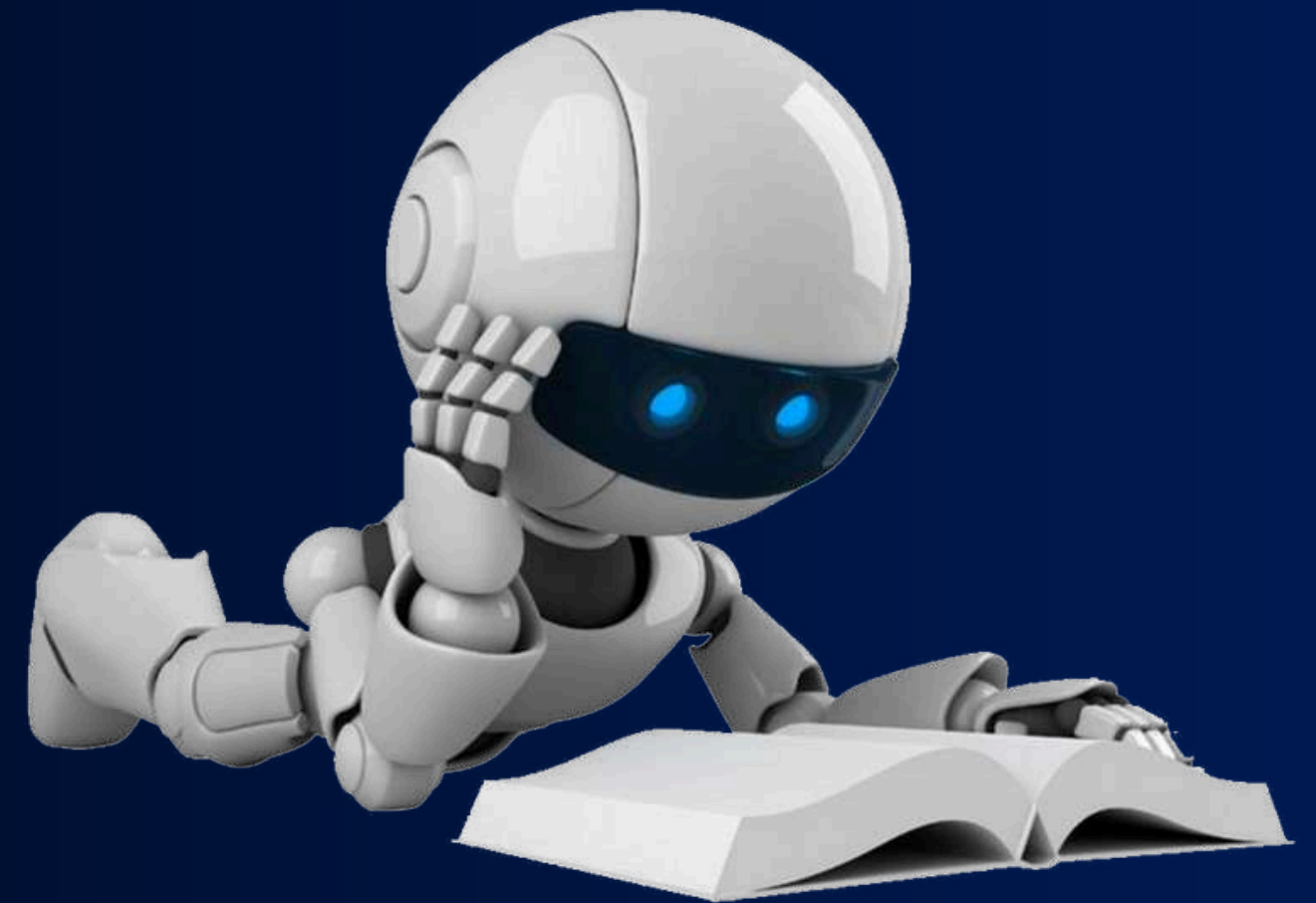
- Data pre-processing
- Cost function
- Overfitting , underfitting
- Evaluations
- Decision Tree
- Random Forest
- Two sample projects using Decision Tree and random forest





# Unsupervised Machine Learning

- What is Unsupervised Machine Learning ?
- Clustering Algorithms
- Dimensional Reduction
- Sample Project



# Reinforcement Learning

- What is RL ?
- How they work
- Real world example
- One sample project



# Deep Learning

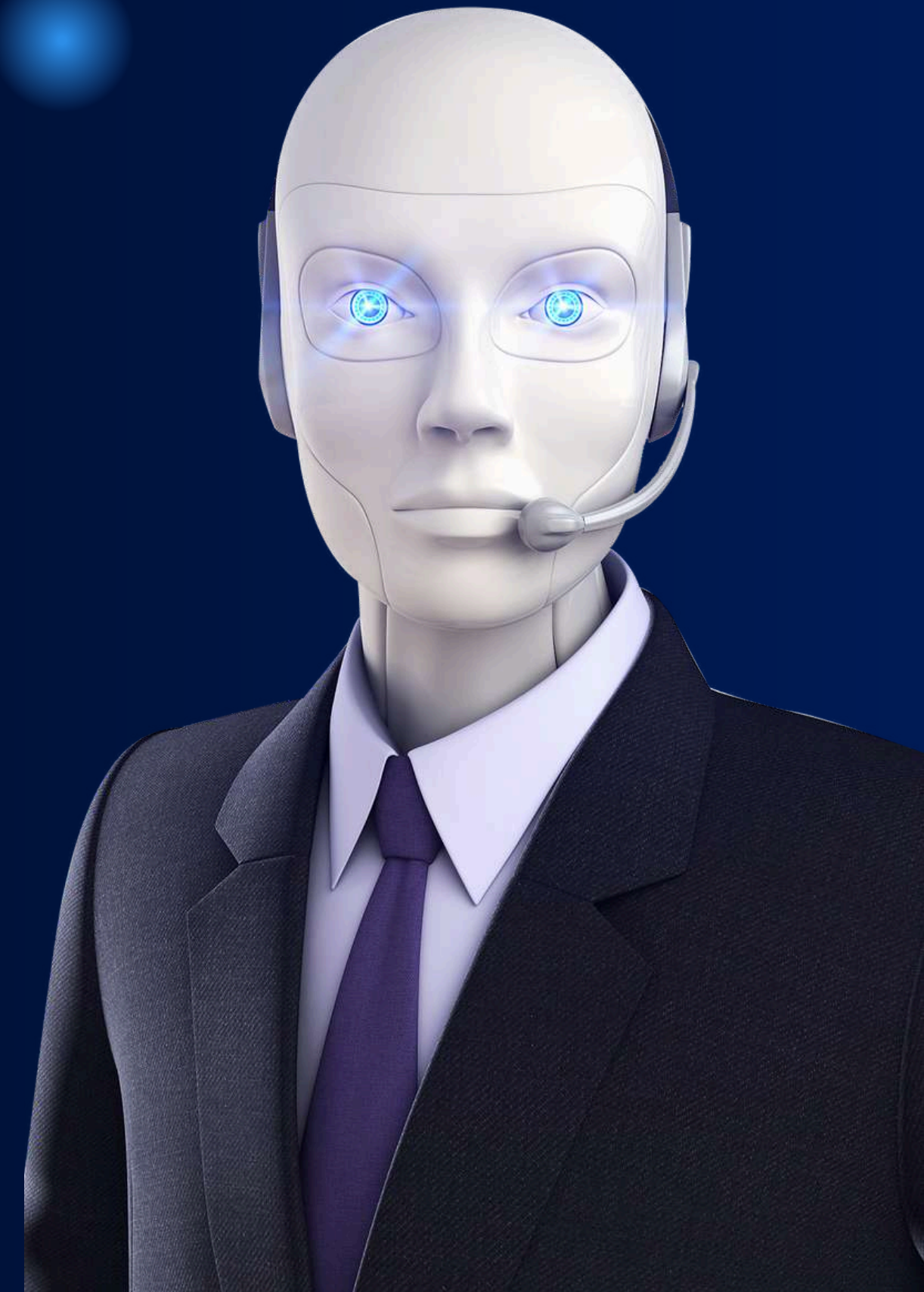
- What is DL ?
- How the artificial Neural network works
- Deep Learning Algorithms
  - CNN
  - LSTM
- Two sample Projects
  - Prediction
  - Classification





# Generative AI

- What is Gen AI ?
- Examples and Tools for gen AI
- How to use API keys and generate things
- Sample project
  - Chat Bot



# AI/ML for Real-World Scenarios

- This is project Based session
- We will do
  - End to end Machine learning models
  - Create backend using the flask
  - Create new Web app for classification problem





# LET'S BEGIN !

