

KANAN PANDIT

M.Sc in Big Data Analytics
RKMVERI, Belur Math, West Bengal, India

karanpandit02@gmail.com

[karanpandit02](https://www.linkedin.com/in/karanpandit02/)

[karanpandit02](https://www.instagram.com/karanpandit02/)

[7384661310](tel:7384661310)

[Portfolio](#)



PROJECTS

• GraphRAG-Based Multi-Document Question Answering System

LLM | NLP | Information Retrieval | Python | FAISS | Neo4j

[\[View Code\]](#)

Aug 2025

- Built a multi-stage GraphRAG system combining BM25, FAISS dense retrieval, and knowledge graph reasoning for evidence-grounded question answering.
- Implemented entity-aware retrieval and citation-grounded LLM generation to reduce hallucination and improve answer traceability.

• Wildfire Confidence Prediction using H2O Distributed Random Forest

Distributed Machine Learning | Python | H2O.ai | pandas | scipy | data analysis

[\[View Code\]](#)

Jan 2025 - May 2025

- Deployed a 2-machine H2O cluster to train a Distributed Random Forest model for multiclass wildfire confidence prediction from satellite data.
- Performed data cleaning, feature engineering, and statistical analysis to improve model interpretability and performance.
- Achieved strong model performance across multiple key evaluation metrics.

• Artistic Image Transformation in Ghibli Aesthetic

Deep Learning | Python | PyTorch | CycleGAN | GAN | Image Generation | Streamlit

[\[View Code\]](#)

Jan 2025 - May 2025

- Developed a custom CycleGAN for unpaired image-to-image translation, transforming real-world photos into Studio Ghibli-style illustrations.
- Improved training stability with identity and cycle consistency losses, and deployed on Streamlit for real-time interactive use.

• Smart Control Hub: Multi-Functional Virtual Controller using Hand Gestures

OpenCV | Mediapipe | Python | PyAutoGUI | PyCAW

[\[View Code\]](#)

Jan 2025 - May 2025

- Built a webcam-based gesture controller for volume, brightness, mouse, and slide control using Mediapipe, PyAutoGUI, and PyCAW with smooth real-time performance.

• A Comparative Study of Classification Algorithms on the EMNIST dataset

Machine Learning | Python | Scikit-learn | Classification | Data Preprocessing

[\[View Code\]](#)

Sep 2024 - Nov 2024

- Compared traditional ML models on the EMNIST dataset for multi-class character recognition (62 classes).
- Built a two-layer classifier to distinguish digits, uppercase, and lowercase letters, identifying class imbalance and scalability as key improvement areas.

COURSEWORK

- Machine Learning
- Deep Learning and NLP
- Java & Hadoop
- Computer Vision
- Artificial Intelligence
- Data Structures and Algorithms
- Finance and Econometrics
- Joy of Computing Using Python
- Linear Algebra

- Graph Database & Distributed-Computing
- Statistics-I
- Advanced Statistics
- Time Series & Survival Analysis
- Probability and Stochastic Process
- Universal Human Values
- Database Management Systems

ACHIEVEMENTS

- Scored 86% in NPTEL course "The Joy of Computing using Python", offered by IIT Ropar

EDUCATION

• Ramakrishna Mission Vivekananda Educational and Research Institute, Howrah

M.Sc in Big Data Analytics

2024 - Present

(Till Sem-1) CGPA: 7.26

• West Bengal University of Teachers' Training, Education Planning and Administration, Kolkata

B.Ed With Pedagogy of Mathematics

2020 - 2022

CGPA: 9.75

• Vidyasagar University, Medinipur

B.Sc in Mathematics

2017 - 2020

CGPA: 6.85

• Golar Sushila Vidyapith High School, Golar

Higher Secondary (10+2) |

2015 - 2017

Score: 78.20%

• Golar Sushila Vidyapith High School, Golar

Secondary (10) |

2009 - 2015

Score: 68.42%

TECHNICAL SKILLS

• Programming Languages: Python, R, LaTeX

• Libraries & Frameworks: Pytorch, OpenCV, scikit-learn, Seaborn, PySpark, Neo4j, H2O, Ray, NumPy, Pandas, Matplotlib

• Tools, Platforms & Database: Git, GitHub, Jupyter Notebook, Google Colab, VS Code, Streamlit, MySQL

• Operating System: Windows, Linux (Ubuntu)

ACTIVITY

• Placement Volunteer, RKMVERI

- Manage Placement Cell for the Batch of 2024-26

• Fest Organiser

- Team Member - Coding Event Organizing Committee Perceptron 2025

- Team Member - Hackathon Event Organizing Committee Perceptron 2025

HOBBY

- Playing Cricket, Watching Movies, Traveling

EXPERIENCE

• AI/ML Engineer, Rezolve AI Jan 2026 - Present

Working on machine learning and AI systems, with a focus on data-driven modeling and intelligent applications.