

KANAN PANDIT

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

✉ kananpandit02@gmail.com  kananpandit02  kananpandit02  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.