RAIHAN UDDIN

M.Sc. in Computer Science
Ramakrishna Mission Vivekananda Educational and Research Institute, Belur Math, West Bengal, India

@ uraihan2511@gmail.com   in itsraihanuddin   ○ Raihan2511   ✆ 7601971615   ⊕ myPortfolio

PROJECTS

➢ ShopLens: AI-powered shopping assistant app
Jan 2025 – May 2025
Tools: Huggingface, OpenCV, YOLO   [GitHub]

- Built a Streamlit-based fashion chatbot integrating Gemini LLM for natural language understanding, along with image upload and real-time fashion item analysis using fine-tuned YOLOs and Fashion-CLIP for object detection and image-to-text matching.
- Evaluated model performance using Recall@6 metric, achieving a score of 0.68—indicating that 68% of the time, the correct item appeared within the top 5 returned results.
- Supervised by **Br. Tamal Mj**

➢ ChatGPT Clone with DeepSeek R1 & RAG-Powered PDF Q&A
Jan 2025 - May 2025
Tools: streamlit, DeepSeek R1, langchain, FAISS   [GitHub]

- Prototyped a ChatGPT-like AI Assistant using DeepSeek R1 and Gemini LLM with early-stage RAG integration for document-based Q&A functionality.
- Enabled PDF uploads with FAISS vector search and implemented persistent chat memory using PostgreSQL
- Supervised by **Prof. Champak Dutta**

➢ Classification-Based Approach for Predicting Smartphone Price Categories
Aug 2024 – Nov 2024
Tools: scikit-learn, pandas, numpy, matplotlib   [GitHub]

- Built machine learning models to classify smartphones into price segments using multiple algorithms
- Achieved best results with SVM (95.20% test accuracy), Logistic Regression (94.95%), and XGBoost (91.92%)
- Supervised by **Br. Tamal Mj**

➢ Wavelet-Based Approach for Authenticating Medical Images & Extracting Patient Info
Jan 2024 – Apr 2024
Tools: python, OpenCV   [GitHub]

- Designed robust digital watermarking system using DWT, Histogram Shifting, and Arnold's Cat Map
- Achieved high fidelity with average PSNR of **68 dB** and SSIM of **0.98** for extracted watermarks
- Supervised by **Prof. Bibek Ranjan Ghosh**

COURSEWORK

- Data Structures and Algorithms
- Machine Learning
- Computer Vision
- Deep Learning and NLP
- Large Language Models
- Theory of Computation
- Probability
- Linear Algebra
- Statistics-I
- Computational Geometry
- Spectral Graph Theory

ACHIEVEMENTS

- **GATE 2025 Qualified** in Computer Science & Information Technology, conducted by IIT Roorkee
- Secured AIR 2 in **MPST Entrance Exam 2024**, conducted by the **Indian Association for the Cultivation of Science (IACS)**

EDUCATION

Ramakrishna Mission Vivekananda Educational and Research Institute, Howrah

M.Sc in Computer Science
📅 2024 – Present

Ramakrishna Mission Residential College (Autonomous), Narendrapur, Kolkata

B.Sc in Computer Science
📅 2021 – 2024   CGPA: 8.30

Mohisda Ramnarayan High School, Paschim Medinipur, West Bengal

Higher Secondary
📅 2019 – 2021   Score: 85.6%

TECHNICAL SKILLS

- **Programming Languages:** C, C++, Python, Java
- **Tools & Framework:** GitHub, SuperAGI, LangChain
- **Python Libraries:** NumPy, Pandas, Matplotlib, Seaborn, OpenCV
- **Database querying:** SQL, MySQL
- **Web Technologies:** HTML, CSS, JavaScript

LEADERSHIP POSITIONS

Instructor at Envision, RKMRC   *Feb 2024*
Guided tech activities during the college tech fest.

Organizer for Perceptron, RKMVERI   *Jan 2025*
Assisted in organizing and managing events during the tech fest.

HOBBIES

- Playing cricket
- Personal fitness and gym workouts
- Watching movies