Rakib Ullah
linkedin.com/in/rakib-ullah-boom | github.com/secrakib
Email: secrakibullah@gmail.com
Mobile: +880-1630-208517

Technical Skills

- **Programming Languages:** Python
- **ML/DL Frameworks:** PyTorch, Scikit-Learn, Transformers (Hugging Face), LangChain, TensorFlow
- **Large Language Models (LLMs):** Fine-tuning, Prompt Engineering
- **Data Science:** Pandas, NumPy, Matplotlib, Seaborn, FAISS
- **Web & Deployment:** FastAPI, Streamlit, Docker, Render (Cloud Platform)
- **Tools & Technologies:** Git, Label Studio, LaTeX, Notion, Draw.io
- **Research Skills:** Literature Review, Experimental Design, Statistical Analysis, Technical Writing, Team Leadership

Research Projects

- **AI/ML Professional Community** — Dhaka, Bangladesh (Remote)
  Researcher — *Aug. 2025 – Present*
  - **Parameter-Efficient Modeling for Low-Resource Bengali NLP**
  - Benchmarking **parameter-efficient architectures** for Bengali NLP, analyzing performance–efficiency trade-offs and suitability for **real-time production deployment**, under supervision of Md. Sultanul Islam Ovi.
  - Authoring the **original research draft**, including methodology, evaluation, and result analysis for publication.

- **Mahdy Research Academy** — Dhaka, Bangladesh (Remote)
  Research Intern | Team Lead — *Jan. 2024 – May 2025*
  - **Framework for Clinical Outcome Prediction in Low-Resource Settings** (Submitted to *Computer Methods and Programs in Biomedicine*)
  - Led pioneering research on a clinical outcome prediction framework for low-resource medical text settings **without native language corpora**, in remote collaboration with mentor Mohammad Junayed Hasan and supervisor Dr. Mahdy Rahman Chowdary.
  - Fine-tuned transformer-based models, achieving **65.3% ROC-AUC** for length-of-stay prediction and **64.9% ROC-AUC** for mortality prediction on **33,000+ clinical records**; developed a end-to-end NLP pipeline for dataset pre-processing.
  - Reproduced baseline studies for academic rigor and co-authored the manuscript , including **publication-ready figures**, **statistical analyses**, and **comparative performance tables**.

- **Safenet AI** — Dhaka, Bangladesh (Remote)
  Researcher | Team Lead — *Nov. 2024 – June 2025*
  - **Classifying Malicious Content in Bengali and Code-Switched Memes: A Multimodal Approach** (Submitted to *IC3IT 2026*)
  - Conceptualized and Led the first research on low-resource Bengali and Bengali-English code-mixed/code-switched memes for classifying inflammatory, hateful, and benign memes; developed a novel dataset of 3,247 instances with detailed annotation guidelines achieving **79% inter-annotator agreement** among three annotators, in collaboration with supervisor and mentor Mominul Islam.
  - Designed and introduced a novel fusion model tailored to this dataset, achieving a **77.65% Macro F1-score**.
  - Co-authored the manuscript with publication-ready visualizations, tables, and detailed result analyses.

Technical Projects

- **Context-Aware Scientific Document Q&A System** | *LangChain, Gemini, FAISS, FastAPI, Docker, Render* [GitHub] [Demo]
  - Built a scientific QA chatbot with LangChain enabling natural-language interaction with PDFs, leveraging Gemini Pro's long context window—addressing its limited usability for scientific QA in the native app.
  - Enhanced system to interpret figures and tables for accurate, context-aware answers from long (>20 page) research papers.
  - Developed microservices architecture (FastAPI + Streamlit), containerized with Docker, deployed on Render, and implemented comprehensive testing for reliability and maintainability.

Competitions

- **CUET National Hackathon 2025** Chittagong, Bangladesh
  Team Qbit *2025*
  - Achieved **37th position among 151 teams** at the CUET National Hackathon 2025; details shared in a LinkedIn post.

Education

- **Sylhet Engineering College** Sylhet, Bangladesh
  Bachelor of Science in Computer Science and Engineering; GPA: 3.30/4.00 *Jan. 2021 – Expected May 2026*

Certifications & Coursework

- **Complete Generative AI Course With Langchain and Huggingface** - Udemy (2025) |**PyTorch for Deep Learning** - Zero to Mastery (2025) | **Complete Data Science, ML, DL, NLP Bootcamp** - Udemy (2024)
- **Machine Learning Specialization** - Coursera (2023) | **Deep Learning Specialization** - Coursera (2023)