

Farhin Rahman

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SUMMARY

AI researcher and engineer with publications in healthcare AI and NLP. My experience is in designing and building end-to-end intelligent systems, from developing agentic workflows with LangGraph and fine-tuning transformers to architecting robust data infrastructure with MLOps best practices.

EDUCATION

- BRAC University** Dhaka, Bangladesh
• *Bachelor of Science in Computer Science (2018-2022)* CGPA: 3.47
Undergraduate Thesis: Predicting Brain Age from EEG Signals Using ML and Neural Network
Honors: VC's List (Top 2% of dept), Summer 2020 & Dean's List (Top 5% of dept), Spring 2019

EXPERIENCE

- Kodamai** Glasgow, UK
• *AI Engineer* August 2025 - Present
Agentic System Design & Orchestration
 - Prototyped a conversational agent MVP using LangGraph/LangChain, implementing robust tool-calling to databases and external APIs, and establishing evaluation loops for performance validation.
 - Co-designed and implemented a multi-modal data architecture combining vector (Qdrant), graph (Neo4j), and SQL databases for complex entity retrieval and relationship modeling.
 - Developed data ingestion pipelines for bootstrapping the system, leveraging embeddings and graph-based relationships for baseline entity matching.
 - Established CI/CD pipelines, containerization, and system tracing/profiling to ensure scalable and reproducible system performance.
- Ontik Technology** Dhaka, Bangladesh
• *AI Engineer* May 2025 - Jul 2025
Social Media Intelligence Platform for Financial Services
 - Designed and built an automated sentiment analysis pipeline for a major bank, processing public social media data related to the institution.
 - Implemented a data ingestion workflow using Apify to gather relevant posts and comments from Facebook pages and groups.
 - Developed and fine-tuned a multi-class sentiment classification model to categorize public feedback (e.g., positive, negative, inquiry), achieving high accuracy on domain-specific language.
 - Created a priority routing system to automatically flag critical comments requiring immediate action, and generated dashboard reports visualizing overall customer satisfaction trends.
- micro1** Los Angeles, California
• *Software Engineer (AI/ML)* March 2024 - April 2025
AI System Backend Development
 - Fine-tuned an AI interviewer model, integrating NER (spaCy) and SBERT-based semantic scoring for context-aware follow-ups, reducing processing time by **40%**.
 - Optimized data pipelines via caching and batching, cutting data prep time by **50%** and improving training efficiency by **30%**.
 - Established an MLflow-based MLOps lifecycle, decreasing model deployment time by **60%** and reducing production bugs by **45%** through improved Git workflows.

- **BCIC Swiss GmbH** Baar, Switzerland
Junior Software Developer May 2023 - September 2023
 - Developed and maintained full-stack web applications (React, JavaScript) and REST APIs (PHP) for production environments.
- **BRAC University** Dhaka, Bangladesh
Research Assistant - Part Time August 2022 - December 2023
 - Contributed to NLP and Computer Vision research by developing models, curating datasets, designing and running experiments, and co-authoring manuscripts for publication.

SKILLS & COMPETENCIES

- **Tech Stack:** Python, SQL, Git, Docker, Linux, REST APIs, JavaScript/TypeScript, AWS/GCP, OpenAI API
- ML/AI:** PyTorch, **PyTorch Lightning**, Hugging Face Transformers, scikit-learn, spaCy, NLTK, TensorFlow
- Data & MLOps:** MLflow, Vector DBs, Neo4j, FastAPI, Streamlit, DVC (basic), Kubernetes (learning)
- Methods:** RAG, Agent Orchestration, Fine-Tuning, Explainable AI, Cross-Validation, Multimodal Systems

PROJECTS

- **Multilingual AI Support Agent:** AI Financial Assistant built on a free-first stack — Ollama for local LLMs, Streamlit UI, SQLite for portfolios, and yfinance/Stooq for live data. It integrates SQL AST validation, multi-RAG retrieval (qualitative, logical, numeric), and neuro-symbolic rules to deliver explainable, ranked stock recommendations. Live at: <https://multilingual-support-agent.streamlit.app>
- **H-Food:** Hierarchical sentiment model for Bangladeshi food-delivery app reviews with class-imbalance handling; First Revision (Scientific Reports).
- **Grape Leaf Diseases Detection with Explainable AI:** Developed a lightweight CNN for leaf disease detection, achieving a 99.7% F1-score. The model outperforms current state-of-the-art methods while using fewer parameters, and its predictions are explained with LIME. Currently under review in the Journal of Machine Learning.

PUBLICATIONS

1. F. Rahman, et al. "Early Autism Disorder Detection Through Visualizing Eye-Tracking Patterns Using Compact Convolutional Transformers." *ICCTA*, 2023. [link]
2. F. Rahman, et al. "A Transfer Learning Approach for Efficient Classification of Waste Materials." *CCWC*, 2023. [link]
3. F. Rahman, et al. "Bengali Speech Recognition: An Overview." *IICAJET*, 2022. [link]

CERTIFICATIONS & HONORS

- **Conference Presenter:** International Conference on Computer and Communication Technology (ICCTA), 2023.
- **Conference Presenter:** IEEE World Conference on Communication and Computing (CCWC), 2023.
- **Certifications:** Full-Stack Web Development, Data Science (micro1).

LANGUAGE COMPETENCY

- **Fluent:** English, Bengali **Elementary:** French, Japanese

REFERENCES

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