Al Jami Islam Anik

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Profile

My research interests lie in the theoretical foundations and practical development of Small Language Models (SLMs), with broader interests in multi-agent systems. Alongside my research experience, I bring a strong software engineering background, with experience building and deploying production-grade software from the ground up.

Education

BRAC University Dhaka, Bangladesh

Bachelor of Science in Computer Science, CGPA: 3.72 / 4.00 2022 to 2026

Publications

AgentCollabBench: Diagnosing When Good Agents Make Bad Collaborators

- *NeurIPS 2026 Datasets and Evaluations Track. ICML 2026 Workshop on Failure Modes in Agentic AI.* Introduced a **900-task diagnostic benchmark** spanning software engineering, DevOps, and data engineering to measure four behavioral failure modes in multi-agent LLM systems: **instruction decay**, **false-belief contagion**, **context leakage**, and **tracer durability**.

Work Experience

Software Engineer, Stealth Startup Remote Apr. 2026 to Present

- Building a **legal AI product** focused on the **mortgage foreclosure** domain, helping legal teams navigate case workflows and documentation at scale.

Software Engineer, Askturing.ai Remote, United States Jul. 2024 to Apr. 2026

- Built app.askturing.ai from scratch, driving **UI/UX decisions**, designing **database schemas**, and contributing in **backend architecture**.
- Contributed to the design and implementation of multiple **agentic workflows** powering the core product.
- Built a **retrieval-augmented generation system** covering document ingestion, retrieval pipelines, and citation-grounded response flows.
- Engineered an end-to-end **authentication system** supporting **2FA**, **SSO**, and **RBAC** with fine-grained permission controls.

Projects

Saul Goodman | Python, Chroma, BM25, MinerU

- Built a grounded **RAG** command-line application that answers questions claim by claim with per-chunk citations. Implemented **hybrid retrieval** using Chroma, BM25, **Reciprocal Rank Fusion**, and **cross-encoder reranking**, plus a **faithfulness auditor** that flags unsupported claims. Operator edits feed back as reusable style, domain, and citation-trust signals so the system improves with use.

Forgotten Lily | Python, Gradio, Qwen2.5-7B, Nemotron-Mini-4B, Modal Live Demo

- Created a narrative mystery game for the **HuggingFace Build Small Hackathon**, winning the **Best Demo award**. **Orchestrated three small models on a single T4 GPU** via Modal: **Qwen2.5-7B** for tone selection, **Nemotron-Mini-4B** for answer grading, and **Kokoro TTS** for speech. Deterministic server-side game logic limits hallucinations.

Qwen2-VL Fine-tuning | Transformers, Unsloth, QLoRA Kaggle

- Fine-tuned a **7B-parameter vision-language model** with **QLoRA** for memory-efficient training, achieving **80% accuracy** through systematic hyperparameter tuning and an end-to-end data pipeline.

Hydroharvest | FastAPI, Scikit-learn, Random Forest

- Built for **NASA Space Apps Challenge 2024**. Trained a **Random Forest** regression model for rainfall prediction and deployed it through a **FastAPI** inference endpoint, covering feature engineering through production serving.

SLM From Scratch | PyTorch, Python

- Implemented a **small language model** from scratch to study **transformer internals**: tokenization, attention, positional encoding, and the training loop, without high-level abstractions.

Technical Skills

AI / ML: RAG Systems, LangChain, LangGraph, Deep Learning, LLM Fine-tuning, QLoRA, Unsloth, PyTorch
Data Stores: Chroma DB, Pinecone, BM25, PostgreSQL, Supabase
Languages: Python, TypeScript, JavaScript, SQL, Bash
Backend & Infrastructure: Python, FastAPI, Docker, CI/CD Pipelines
Frontend: Typescript, React, Next.js, Tailwind CSS, Shadcn, Framer Motion

Achievements

- Won **1st Place** at BRAC University Intrachactive 1.0 Hackathon.
- Placed **5th** at Innovation Cohort, BUET Rise, and raised initial funding for our VR product.
- Won the **Best Demo** award at the global HuggingFace and Gradio Build Small Hackathon for Forgotten Lily.