

Shahriar Ahmed Seam

shahriarseam17@gmail.com | LinkedIn | Github | +880 1700-942829

SUMMARY

I am a Computer Science and Engineering student at BUET and an AI/ML engineer working across the modern AI stack, from LLMs, RAG, and agentic systems to generative AI, NLP, computer vision, and diffusion models. Alongside this, I research and fine-tune LLMs and turn them into production-grade systems built on fault-tolerant microservices and solid backend, full-stack, and DevOps engineering. To me, AI should be a core, observable part of production infrastructure, not just an add-on.

EDUCATION

Bangladesh University of Engineering and Technology (BUET) *July 2026*

Bachelor of Science in Computer Science & Engineering

Notre Dame College *June 2020*

Higher Secondary Certificate, Science

EXPERIENCE

Somokolon Labs *January 2026 – Present*

Founder & AI/ML Engineer somokolonlabs.com

- Founded and run an AI and software studio that ships LLM, RAG, generative-AI, and full-stack products end to end.
- Delivered production point-of-sale (POS) software for small retail businesses, from requirements gathering through deployment.
- Own the full lifecycle: research, engineering, CI/CD, cloud deployment, and monitoring across the studio's shared infrastructure.

PROJECTS

- **Nexus Agent Orchestrator (LangGraph + FastAPI + Next.js + pgvector)**: Multi-agent platform (plan → research → code → critique) with RAG over documents; runs fully offline with local models.
- **Vector Vault DB (C++17 + AVX-512 + pybind11)**: Vector database built from scratch with HNSW/IVF indexes and AVX-512 distance kernels; Python bindings for search over millions of vectors.
- **ResoNet (ONNX + ResNet + Dart + Edge AI)**: On-device respiratory screening from cough audio; reimplemented preprocessing and ResNet18 in pure Dart, cutting the app from 600 MB+ to ~70 MB with no accuracy loss.
- **HillTrack Pulse (DBSCAN + FastAPI + Ollama + Gemini)**: Offline-first outbreak-detection and medical-consultation system for low-connectivity rural regions of Bangladesh.

PROGRAMMING SKILLS

- **Languages**: Python, C++, TypeScript/JavaScript, Go, Java, SQL
- **AI/ML**: PyTorch, LLMs & RAG, Agentic AI (LangGraph, LangChain), Generative AI, NLP, Computer Vision, Diffusion Models, Hugging Face, ONNX
- **Backend & Full Stack**: FastAPI, Node.js/Express, Spring Boot, React, Next.js, PostgreSQL, Redis
- **DevOps & MLOps**: Docker, Kubernetes, Kafka, CI/CD (GitHub Actions), AWS, Ollama, Git

LEADERSHIP & ORGANIZATIONAL EXPERIENCE

Secretary (LWS), Notre Dame Science Club *May 2020 – May 2021*

Member, BUET Robotics Club

Volunteer, Quantum Foundation Blood Donation Program

AWARDS & ACHIEVEMENTS

- **Top 5 Finalist**, Future Builders 2025 (AI-Driven Cognitive Innovation Hackathon) — built *HillTrack Pulse*, an offline-first healthcare platform for rural Bangladesh.
- **Finalist (Top 28 Teams, MarTech & Branding)**, INFINITE AI Builders — built *AIgnis*, an AI-driven autonomous marketing-campaign system.
- **Finalist**, BUET CSE Fest Hackathon — built *OrionStream ML*, an event-driven ML inference platform.
- **Regional Champion**, Bangladesh Physics Olympiad; National Participant, Physics & Astronomy Olympiads