Sheikh Tanvir Ahmed

Dhaka, Bangladesh | +8801643631514 | shkhtanvirahmed@gmail.com | github.com/ahvir |
linkedin.com/in/shkhtanvirahmed | ahvir.github.io

SUMMARY

AI/ML-focused Software Engineer with industry and research experience in computer vision, machine learning pipelines, model benchmarking, and AI-powered applications. Experienced in Python, PyTorch, TensorFlow, LLM APIs, RAG, and production-oriented AI workflows, with a strong foundation in algorithms and software engineering.

EDUCATION

United International University
Dhaka, Bangladesh

Bachelor of Computer Science and Engineering — Oct 2022 - June 2026

CGPA: 3.99/4.00 | **Summa Cum Laude**

Relevant Coursework: Data Structures & Algorithms, Artificial Intelligence, Machine Learning, System Analysis And Design, Database Management System, Cloud Computing, Software Engineering

WORK EXPERIENCE

Software Engineer - Backend & DevOps
Sep 2026 – Present

Popular Travel IT — Full-Time

- Contribute to **DevOps and backend infrastructure** for production systems, focusing on deployment, monitoring, observability, and reliability.
- Work with **Docker Swarm** for container orchestration and distributed service deployment.
- Build and maintain **ELK Stack** infrastructure for centralized logging, log analysis, and system observability.
- Configure **Filebeat** and **Metricbeat** for centralized log collection and infrastructure/host monitoring.
- Develop **Kibana dashboards and ES|QL queries** to visualize operational metrics, investigate logs, and monitor production systems.
- Work with **Horizon** and supporting infrastructure components for service monitoring and operational management.
- Explore and apply **distributed systems concepts**, including consensus, service coordination, and observability, to improve understanding of production infrastructure.

Intern AI Engineer
Mar 2026 – Aug 2026

Samsung R&D Institute, Bangladesh — Full-Time

- Contributed to the development of a **.NET**-based medical review application **released by Samsung HQ**.
- Conducted model benchmarking and performance evaluation for computer vision systems.
- Designed end-to-end AI workflows for medical imaging applications.
- Developed preprocessing tools and data pipelines for production AI workflows.
- Collaborated with global engineering teams following production software development practices.

Software Engineer - Backend & DevOps
May 2026 – Aug 2026

Popular Travel IT — Part-Time

- Contributed to backend infrastructure and observability initiatives for production systems.
- Researched consensus algorithms and distributed systems observability.
- Built ELK Stack prototypes for centralized logging and visualization.
- Implemented Filebeat and Metricbeat for log collection and infrastructure monitoring.
- Developed Kibana dashboards using ES|QL for operational insights.

Research Intern
Feb 2026 – Present

CRISiS Lab, Joint Centre for Disaster Research (JCDR) — Remote

Massey University, New Zealand

- Conducting disaster resilience research at the Joint Centre for Disaster Research (JCDR), Massey University.
- Performing numerical modelling of timber connectors for structural disaster resilience research.

- Building and annotating sensor/digital datasets to support ML workflows in hazard analysis.
- Developing computational models and data pipelines for analyzing disaster risk communication.

Undergraduate Teaching Assistant
Nov 2024 – Jan 2026

United International University
Dhaka, Bangladesh

- Assisted faculty in course delivery, classroom management, and academic activities.
- Mentored students on coursework, research opportunities, and career development.
- Provided academic counseling and guidance to probationary students.
- Evaluated assignments, projects, and other course assessments.

Undergraduate Grader
Oct 2023 – Jan 2024

United International University
Dhaka, Bangladesh

- Evaluated assignments and coursework for undergraduate computer science courses.

PROJECTS

Autonomous Car Parking System
- Built a **reinforcement learning-based** self-driving car simulation in Unity and deployed it to a real-world Arduino vehicle via custom REST APIs
- Trained an RL agent to perform autonomous parking tasks
- Awarded **3rd runner-up** among 100+ teams at UIU Project Show, Summer 2024

OptiTask - Personal Management System [GitHub]
- Developed a task automation and emotion-aware productivity app with group chat, smart task assignment, and AI-driven support
- Integrated a ChatBot using **the Gemini API** with **Stanford NLP** for user emotion analysis and personalized responses;
- Won **1st place (Poster Category)** out of 150+ teams at UIU Fall Project Show 2024

VoteChain - Blockchain Based Voting System [GitHub]
- Built a decentralized voting platform with wallet authentication, real-time voting logic, and secure smart contract execution
- Utilized React, Next.js, TypeScript, and Solidity with MetaMask and custom APIs to handle the voting structure

EngReji - AI Powered Learning Platform [GitHub] [Live Demo]
- Developed a learning platform that empowers rural Bangladeshi students to improve spoken English through real-time AI feedback on pronunciation and fluency
- Designed the frontend with TypeScript & Tailwind CSS and built a scalable Python backend integrated with advanced open-source AI models and APIs for speech analysis
- Performed functionality and regression testing during development to ensure consistent performance across modules.
- Achieved **National** and **International** recognition: **Finalist** in Bangladesh Blockchain Olympiad 2025 (AI Category), as well as **Honorable Mention**, and **shortlisted** at **JavaAIFest** (powered by **TherapBD**)

ACTIVITIES

- Solved **hundreds of algorithmic problems** across **LeetCode, Codeforces, and AtCoder**.
- Selected for the **IBM Qiskit Advocate Program**.
- Nominated to represent Bangladesh at the **International Data Science Olympiad (IDSOL) 2025**.
- Represented United International University at the **Inter-University Programming Contest (IUPC) 2025**.

AWARDS

- **Result-Based Merit Scholarship (**In All Undergrad Trimesters**), United International University**
- **Finalist & Honorable Mention, AI Category, Bangladesh Blockchain Olympiad 2025**
- **Champion, Poster Category, UIU CSE Project Show 2024 (OptiTask)**
- **3rd Runner-Up, UIU CSE Project Show 2024 (Autonomous Car Parking System)**

- **Bronze Medal, University Physics Competition 2025**
- **Talentpool Scholarship (SSC)**

TECHNICAL SKILLS

- **Programming Languages:** C, C++, Go, Python, Java, TypeScript, JavaScript, SQL
- **Frameworks & Libraries**: React, Next.js, Node.js, Tailwind CSS, .NET
- **AI & Machine Learning:** PyTorch, TensorFlow, Scikit-learn, OpenAI API, Gemini API
- **Infrastructure & DevOps:** Docker, Elasticsearch, Kibana, Logstash, Filebeat, Metricbeat, Microservices
- **Developer Tools**: Git, Jira, Figma, Cline, GitHub Copilot, OpenAI Codex
- **Concepts**: Data Structures & Algorithms, Distributed Systems, Computer Vision, Machine Learning, Deep Learning, REST APIs, Retrieval-Augmented Generation (RAG), SDLC