

Samim Reza

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GitHub | LinkedIn

EDUCATION

Green University of Bangladesh <i>B.Sc. in Computer Science and Engineering</i>	Jan 2022 – Present CGPA: 3.80/4.00
Government Bangabandhu College <i>Higher Secondary Certificate</i>	2017 – 2019 GPA: 4.75/5.00
S.M. Model Govt. High School <i>Secondary School Certificate</i>	2012 – 2017 GPA: 5.00/5.00

WORK EXPERIENCE

Robotics Engineer Intern — RoboTech Valley	Jul 2025 – Sept 2025
– Designing robotics modules using embedded systems and ROS for autonomous navigation.	
Teaching Assistant — Green University of Bangladesh	May 2025 – Aug 2025
– Conducting demo classes on C Programming and Data Structures. – Evaluating exam scripts and preparing grade sheets.	
Programming Trainer — Green University of Bangladesh	Jan 2025 – Dec 2025
– Training students for competitive programming; conducted weekly sessions.	
Mentor — University Mentorship Program	Jun 2023 – Aug 2025
– Mentored first-year students in programming fundamentals and professional tools.	

RESEARCH EXPERIENCE (ONGOING)

Denoising Diffusion Probabilistic Models

- Integrating edge detection for enhanced image generation.

Federated Learning

- Adaptive client selection algorithms for optimal convergence.

Human-in-the-Loop ML

- Survey on HITL approaches in modern ML systems.

FEATURED PROJECTS

Personal AI Assistant — LLM, RAG, LangChain	Live GitHub
– LLM-powered chatbot with RAG implementation for personalized assistance.	
KobitaLM — Bengali Poetry Generator	Model GitHub
– Fine-tuned Gemma 2 9B model with LoRA & RAG for generating Bengali poetry in styles of classical poets like Rabindranath Tagore, Jibanananda Das, and more.	
WeCare Medical Service App — FastAPI, Ollama/Qwen3-VL, PWA, MySQL	GitHub
– Offline-first PWA for rural healthcare with AI triage capabilities.	
Cirrhosis Outcome Prediction — XGBoost, LightGBM, CatBoost	BAIC 2025

- Ensemble ML classifier with 55 engineered features, achieving 14.5% accuracy gain.

Mars Rover — ROS, Embedded Systems

GitHub

- ROS-based autonomous navigation system for Mars rover simulation.

Animal Introductory System — Java, MySQL

GitHub

- Java GUI application with MySQL database for animal information management.

Portal Extended — JavaScript, PHP, MySQL

GitHub

- Full-stack web portal with comprehensive functionality.

TECHNICAL SKILLS

Languages: C, C++, Python, Java, JavaScript, PHP

AI/ML: PyTorch, TensorFlow, Scikit-learn, LangChain, VectorDB, RAG, LLM, Roboflow

Tools & Platforms: ROS, Git, Docker, LaTeX, Linux, MySQL, Arduino, Raspberry Pi, Jetson, ESP32, Azure, PWA

Data Science: Kaggle Competitions, Machine Learning, Data Analysis

COMPETITIVE PROGRAMMING

- Champion: Intra Dept Programming Contest 2024.
- 3x ICPC Regionalist: 2022, 2023, 2024.
- Around 1000 problems solved across online judges.
- Kaggle Competitor: Active in ML competitions.
- Problem Setter: Junior Programming Contests.
- Participated: NCPC 2023, IUPC 2023/2024.

ACHIEVEMENTS

- Vice Chancellor's and DEAN's Award for Academic Excellence.
- Champion, Inter Dept Programming Contest 2024.
- Secured 8th position in BUBT Artificial Intelligence Conquest (Kaggle).
- National IT Quiz Competition Medalist.

REFERENCES

Prof. Dr. Md. Saiful Azad

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