

## SKILLS ↗

<b>Language</b>	Java, Python, C, C++, Solidity, Git, L <sup>A</sup> T <sub>E</sub> X, C#, Bash, PHP, JavaScript, Matlab, SQL, Ruby on Rails
<b>Frontend</b>	HTML5, CSS, JS, Bootstrap, React.js, Vue.js, MERN stack
<b>Backend</b>	FastAPI, REST API, Docker, Flask, FastAPI, Redis, RQ, Celery, Django, ASP.NET Core, Node.js
<b>Database</b>	SQLAlchemy, MySQL, Firebase, MongoDB, PostgreSQL
<b>Soft Skills</b>	Proficiency in English Communication, Project Management, English (business), Bengali (business)
<b>Other</b>	DSA, OOP, Containerization, Networking & Linux, PyTorch, Azure, CI/CD, TensorFlow, Git, Docker, Office Tools

## PROJECTS | CERTIFICATIONS ↗

**MIST Mongol Barota (An autonomous rover) 2021 - 2023**

Mars Society's University Rover Challenge (URC) USA  
Anatolian Rover Challenge (ARC) UKET, Turkey

Tech Stack ROS, Robotics, ML, Autonomy, Python, Flask, R&D

**Retrieval Augmented Generation Using Gemini Pro LLM and FastAPI | Github**

Tech Stack FastAPI, Gemini, LLM, RAG, API development

**Pretrained CNN-based Dog Classifier | Github | Certificate**

Tech Stack Python, ResNET, VGG16, Machine Learning

**NLTK LSTM Based HateSpeech Detection | Github**

Tech Stack ML, NLP, LSTM, Python

**E-Mail Registration System in RESTful Way | Github**

Tech Stack REST, Flask, SQLAlchemy, PyDantic, Docker

**MERMS | Github**

Tech Stack HTML, CSS, React.JS, Vue.js, PHP, OracleDB

**SoccerBot**

Tech Stack Arduino, C++

**DekhboKinbo | Github**

Tech Stack C#, .NET Core MVC, Entity, MySQL

**Alumni Information Management System | Github**

Tech Stack C#, MySQL

**Blockchain-based Land Record management system with biometric authentication | Blockchain (Contract) | Web-site**

Tech Stack Blockchain, Django, IOT, Jira, Manual testing

**PyTorch-Create Your Own Classifier | Github | Certificate**

Tech Stack Python, CNN, Machine Learning, AWS, Udacity

## RESEARCH & PUBLICATIONS (5+) ↗ | SCHOLAR ↗

- DeepTriNet: A Tri-Level Attention Based DeepLabv3+ Architecture for Semantic Segmentation of Satellite Images. [Link] [got the best paper award]
- Performance Analysis of Various EfficientNet Based U-Net++ Architecture for Automatic Building Extraction from High Resolution Satellite Images. [Link]

- CycleGAN-Based Data Augmentation with CNN and Vision Transformers (ViT) Models for Improved Maize Leaf Disease Classification. [Link]
- Biomolecular Analysis of Soil Samples and Rock Imagery for Tracing Evidence of Life Using a Mobile Robot [Link]
- Enhancing Mango Leaf Disease Classification: ViT, BiT, and CNN-Based Models Evaluated on CycleGAN-Augmented Data. [Link]
- SecureLandChain: A Blockchain-Based Land Registry System with Biometric Authentication and Certificate Verification System [Submitted for a Q1]
- Automatic Literature Review Generation : An Improved LLM-RAG Based Solution Embedded With Regex and T5. [Thesis]

## EXPERIENCE ↗

**Junior Software Engineer**

Gigalogy Inc.

**March 2024 - Now**

Tokyo, Japan

- Worked on a project which involves REST API and Flask based backend development (SQLAlchemy, PyDantic, Docker, Insomnia)
- Developed RAG LLM based solution for Japanese Company which acts as a recommender system for E-Commerce systems.

**Software & Autonomous System Developer 2021 - 2023**

Mars Society's University Rover Challenge (URC) USA  
Anatolian Rover Challenge (ARC) UKET, Turkey

- Developed an autonomous rover system with my team for URC-2021 competition **champion globally beating 88 teams.** [Link]
- Upgraded the autonomous rover system for ARC-2022 competition **became third among 14 final contestant countries.** [Link]
- Achieved a total of 50,000+ USD fund from Government & Non-Govt Sources.
- Software & Autonomous Team Lead For URC-2023 & ARC-2023 (2nd in Asia, 5th Globally)

**Industrial Trainee**

Brainstation 23

**Jan 2023 - Feb 2023**

Mirpur DOHS, Dhaka

- Acquired expertise in C# and ASP.NET MVC through Brainstation 23's LMS, culminating in the development of a feature-rich desktop application.
- Executed two ASP.NET web-based projects, demonstrating proficiency in full-stack development and responsive design principles.
- Delivered end-to-end solutions in a project-based learning environment, reinforcing software development lifecycle skills and best practices.

**Stackoverflow ↗ | AskUbuntu ↗**

Provided 4 solutions

- Solution links : [1](#) [2](#) [3](#) [4](#)

**Competitive programming**

**2020 - Present**

- Solved over 250+ problems on GeeksForGeeks, Codeforces and Leetcode

## EDUCATION ↗

**B.Sc in Computer Science and Engineering**

Military Institute of Science and Technology

**Higher Secondary School Certificate**

**2017 - 2019**

Barishal Cadet College