# AL AMRU BIL MARUF

Software Engineer

Dhaka, Bangladesh 👩 mortytheplatypus.github.io

#### **SUMMARY**

Full Stack developer with a focus in building scalable, efficient, and user-friendly applications. I have a special interest in problem solving and am eager to acquire expertise in newer technologies in my arsenal. I am open to challenges and committed to finding my way through them.

#### **SKILLS**

Languages: C/C++, Python, Java, JavaScript, Bash

Frameworks/Libraries: Node.js, Express.js, Next.js, React, Spring Boot, Flask, Tailwind

Technologies: Docker, Git, WebSocket, Kafka, Redis, Liquibase, Nginx

Database: MySQL, PostgreSQL, MongoDB, Cassandra

#### **EXPERIENCE**

May 2024 onwards

#### Synesis IT PLC

Working as a Software Engineer and contributing to the full-stack development of Convay, a video conferencing platform. Primary responsibilities include feature development, bug fixes, and refactoring while adhering to industry best practices to optimize user experience.

Technologies: Spring Boot, React, Docker, WebSocket, Liquibase, MySQL, Cassandra, Redis, Kafka, Nginx

May 2023 -June 2023

#### **MYSOFT LIMITED**

Worked as a health analytics intern during my undergrad days. The main task was to manage and analyze big data with the goal of finding trends and patterns to reduce overhead and serve hospitals and patients better and more efficiently.

Technologies: Flask, Angular, PostgreSQL

### **PROJECTS**

PostgreSQL Next.js Express.js

### **Find My Apartment**

Github: Frontend | Github: Backend

Full stack project. Simplified apartment search with advanced search options, classified listings (bachelor, family, sublet), wishlist creation, and personalized recommendations. Users can also showcase their properties for rent, while a map view feature enhances the overall experience.

PostgreSQL React Spring Boot **Auth Me In** 

Github Repo

A template for implementing JWT-based authentication using React and Spring Boot. It features secure user authentication, role-based authorization, and a modular structure, making it an excellent adaptable starting point for building scalable, secure web applications

PLSQL

Express.js

React

#### **Fantasy Premier League**

Github Repo

Database project. Replicating Fantasy Premier League, which allows users to create fantasy football teams, select players, and compete in leagues. It is a database-driven project that focuses on realistic football management within a virtual framework.

C++ NS2 **Curvilinear RED Github Repo** 

Implementation of Curvilinear RED, an active queue management (AQM) scheme using NS2 for wired networks. Modification of the RED algorithm to optimize data flow by dynamically managing congestion points, ensuring efficient and reliable connections.

C/C++ OpenGL

#### **Computer Graphics**

Github Repo

A functional wall clock using OpenGL, showcasing seamless transitions between a cube and a sphere (cubosphere), and implementing ray tracing on geometric objects within a visually striking infinite black and white checker grid.

Java

### File Server

Github Repo

A web server capable of managing multiple incoming HTTP GET requests and responding to clients with correctly formatted HTTP response messages. It ensures that the Content-Type header in the response aligns with the requested resource, adhering to standard HTTP protocol conventions for proper communication and compatibility.)

#### **EDUCATION**

April 2019 — May 2024

## Bangladesh University of Engineering and Technology

Undergrad

BSc in Computer Science and Engineering (cgpa: 3.48/4.00)

**Courses**: Object Oriented Programming, Data Structure and Algorithms, Database, Compiler Design, Computer Architecture, Microprocessor and Mircrocontroller, Computer Networks, Operating Systems, Artificial Intelligence, Computer Security, System Design, Computer Graphics, Machine Learning, Simulation Modeling, Introduction to Bioinformatics, Basic Graph Theory

Thesis topic: Handwritten Bangla Character Recognition Using Convolutional Neural Networks

## OTHERS -

- Fluent in Bengali and English
- Senior Member and Mentor in Dinajpur Math Club