# Ali Hasan Mohiuddin

(**202)-468-0994 | amohiud@gmu.edu | github.com/somethingdevs | Fairfax, Virginia 22030**


## EDUCATION

**Master of Science in Computer Science** Aug 2022 – May 2024
George Mason University, Fairfax, Virginia, United States *GPA – 3.77*

## PROFESSIONAL EXPERIENCE

**The Ingentas** May 2022 – July 2022
S**oftware Developer Intern**

- Led a team of three developers in the design and development of a mobile application using Dart and Flutter, utilizing agile methodologies, and coordinating daily stand-up meetings and sprint planning sessions.
- Employed Figma for UI/UX design, creating wireframes, prototypes, and high-fidelity mock-ups, contributing to a 25% improvement in user engagement.
- Leveraged Trello Software to manage more than 20+ tasks and issues, improving sprint cycle efficiency by 25%.
- Incorporated Git and GitHub for version control and collaboration on team projects, including submitting and reviewing pull requests and resolving merge conflicts.

## SKILLS

**Languages:** Python, JavaScript, Java, C, C++, Dart, MATLAB, R, HTML/CSS, SQL
**Database Technologies:** MySQL, MongoDB, Postgres, Firebase
**Frameworks/Libraries:** Flutter, FastAPI, React, Django, Express, NodeJS, LLMs, JSP
**Technologies and Platforms:** Linux, macOS, Android Studio, Apache Tomcat, GitHub, Docker, AWS, Excel, Figma

## PUBLICATIONS

**An Initial Framework for Mobile Healthcare Systems using Deep Neural Networks** Dec 2019

- M. Misbhauddin, M. A. Malik and A. H. Mohiuddin, 2019 IEEE 9th International Conference on Advanced Computing (IACC), 2019, pp. 205-210, doi: 1109/IACC48062.2019.8971543

## ACADEMIC PROJECTS

**JEEBench Solution Engine** |*Python, Jupyter Notebook, GPT-4 API, BERT* Mar 2024

- Developed an advanced solution engine leveraging the GPT-4 API and LLM BERT models to autonomously solve complex problems from the JEEBench dataset, aimed at enhancing preparatory tools for competitive exams.
- Engineered a robust backend system using Python, integrating cutting-edge NLP techniques to interpret and analyze scientific and mathematical questions, facilitating high accuracy in automated problem-solving..
- Designed and implemented a series of algorithms to effectively utilize the GPT-4 API for generating solutions, optimizing performance to handle diverse question types and complexity levels, leading to a significant improvement in predictive accuracy and efficiency.

**Secure Online Monopoly** | *Python, JavaScript, MySQL, FastAPI* May 2023

- Directed a team of three in the design and implementation of a secure online multiplayer Monopoly game, facilitating interactive play among four users, leveraging Python, JavaScript, HTML/CSS, FastAPI, and MySQL.
- Constructed a robust API infrastructure using FastAPI, capable of handling over 1,000 GET and POST requests daily, ensuring seamless user interactions and functionality.
- Employed secure software design principles, effectively mitigating top OWASP and CWE vulnerabilities such as SQL Injection and XSS attacks, protecting hundreds of user data entries.
- Engineered a secure user interface with robust authentication using iterated salted hashes, bolstering user and session security by 50%, enhancing the overall game experience.

**LoyaltyFirst Inc.** | *Java, JSP, SQL, Apache Tomcat, Android Studio* Dec 2022

- Spearheaded a team of four for the development of a feature-rich Android application using Java and Android Studio, managing over 50+ membership transactions and facilitating swift record viewing for a Loyalty Rewards Program.
- Architected and deployed a robust Oracle SQL database with over 15 normalized tables, stored procedures, and triggers, enhancing data storage efficiency by 30% and retrieval speed by 25%.
- Implemented Apache Tomcat for server deployment, establishing seamless communication between JSP, Java Servlets, and the Oracle Database, facilitating precise data fetching based on diverse parameters for over 100+ unique user requests daily.