Mohammed Rahil Hussain

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Education

Georgia Institute of Technology

Atlanta, GA

M.S. in Computer Engineering

August 2024 - Dec 2025

B.S. in Computer Engineering, Highest Honors Graduate

May 2021 - May 2024

• Relevant Coursework: Data Structures and Algorithms, Advanced Programming, Cloud Computing, Object-Oriented Design, Operating Systems, Design and Analysis of Algorithms, Distributed Systems

Experience

Simeio – Software Engineer Intern

May 2023 – August 2023

- Implemented the integration of **AngularJS** front end with a MySQL database through RESTful API endpoints to store user account data, leading to a 90% increase in user data retention.
- Debugged backend **Java** errors related to user CRUD operations by tracing API path request URLs from the IO webpage to the backend codebase, reducing the web app's time-to-market by 70%.
- Collaborated with cross-functional teams to transition the webpage from a monolithic to a **cloud-based microservices** framework in Spring Boot, resulting in a 70% boost in system scalability.

Georgia Tech CEE – Student Assistant in Programming

January 2023 – May 2023

• Teamed with MIT professors to implement rigorous testing and data structure optimization of MIT's tRIBS Distributed Model in C++, resulting in a 40% improvement in weather data processing speed.

Projects

English Premier League Web App

July 2024

- Constructed a complex data scraping model that automated the retrieval of player statistics for the 2023-2024 EPL season for 700+ soccer players using **Python**, BeautifulSoup, and Pandas, and stored it in CSV format.
- Connected the database to a backend **Java Spring Boot** application, which functions as a RESTful API allowing users to make requests to manipulate the scraped data stored in a PostgreSQL database.

Stock Portfolio Monitoring and Sharing Web App

June 2024

• Engineered a full-stack web app using **Python Django** for the backend, **React** for the front end, and a PostgreSQL database to monitor and share stock portfolios, aiding potential investors in making informed financial decisions.

IoT Smart Fan Kit August 2023 – May 2024

• Developed an iOS app using Swift that exchanges HTTP requests via REST API endpoints to a web server to control a smart fan kit, allowing users to regulate the heat index and manipulate speeds.

Photo Gallery Application

January 2024 – May 2024

- Created a **Python**-based photo gallery web app and deployed it on an AWS EC2 instance, utilizing a microservices architecture in a **Django** framework for the backend and HTML/CSS for the front end.
- Employed DynamoDB to store the user's photos, reducing query response time by 55%.

Campus Discovery App

November 2023 – December 2023

- Built a full-stack Android mobile app in XML and Java with 5 students, enabling users to register for on-campus events.
- Designed MongoDB schemas, utilized **Node.js** for user login, and developed a **Java** backend server, enabling smooth integration between the front-end Android app and a cloud-hosted MongoDB database.

Skills

Programming Languages: Java, Python, C, C++, Objective-C, JavaScript, HTML5, CSS3, Swift, Swift UI, TypeScript Tools: TensorFlow, PyTorch, AWS, MySQL, NoSQL, Linux, Unix, GitHub, Git, MongoDB, Google Firebase, Spring Boot, Node.js, JUnit, Postman, Docker, AngularJS, React, Pandas, Scikit Learn, PostgreSQL, BeautifulSoup, Flask, Django Concepts: Agile, Scrum, Object-Oriented Programming, Operating Systems, Web/Mobile Application Development, Full Stack Development, Frontend, Backend, Data Structures and Algorithms, Distributed System, AI/ML