Mohammed Adnan Hossain

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Education

Georgia Institute of Technology — Atlanta, GA
Bachelor of Science in Computer Science — *Aug. 2021 – Dec 2024*

Experience

Software Engineering Intern — January 2023 – May 2023
MerchLogix — *Atlanta, GA*

- **Made an observability dashboard using PHP** and provided clients with key insights about their KPIs leading to a **28.2%** average increase in monthly client satisfaction
- Integrated the planogram visual feature into client-side software which led to a **14% increase in monthly clients** by using glTF JSON Library for the visual feature along with Javascript, PHP, and HTML for the software
- **Eliminated the need for manual steps from Product Support through the implementation of automated processes** responsible for downloading and emailing the payment dues reports to the clients using Perl and Python cron jobs hosted on **GitHub Actions**

Software Engineering Intern — May 2022 – Aug 2022
MerchLogix — *Atlanta, GA*

- Coordinated with clients to translate database requirements into an ERD model and subsequently a database model that serves a Transcription Agency with over 1000 transcribers having over a million client interactions
- Introduced the functionality of tracking payments through schema modification, database code changes and integrated this functionality with existing software using pg_connect API and PHP

Undergraduate Research Assistant — Jan 2022 – Present
Georgia Institute of Technology — *Atlanta, GA*

- Collaborated on the design and implementation of a new Binary Classification algorithm utilizing ResNet50-CNN to classify football game plays, resulting in a notable **18%** improvement in prediction accuracy
- Incorporated Markov Chains to create a probability matrix which filtered the data and helped achieve **87.26% accuracy which is the highest recorded accuracy** in the field.
- Documented our methods and processes for our presentation at **MIT Sloan Sports Analytics Conference**
- Optimized the battery life by **46%** for the CC3235SF device by implementing a feature to retrieve voltages from multiple single ADC channels and automating the process using a timer feedback function
- **Reduced 100%** of manual labor and time required in collecting and writing code into the device chip periodically by deploying a feature to merge code changes **over-the-air(OTA)** to the devices located in the stadium

Projects

Integrated Bank Application System | *Spring, Java, Maven, Docker, Kubernetes* — Dec 2023 – Present

- Designed and assembled microservices architecture for Accounts, Cards, and Loans applications using SpringBoot, facilitating seamless communication via REST APIs
- Orchestrated deployment with Docker and Kubernetes, ensuring scalability and reliability, while integrating Apache Kafka for event-driven communication in a comprehensive bank application

NetWorker | *Javascript* — August 2023 – September 2023

- Developed a JavaScript-based Chrome extension to automate LinkedIn connections requests
- Facilitated DOM manipulation to personalize notes and expedite connection requests with a single click on the 'Connect' button, resulting in a 50% reduction in time spent on networking processes

Chat Room | *Network Programming, C++, TCP, UDP, Git* — October 2022 – November 2022

- Designed a simulated chat room app using UDT sockets allowing users to interact and send text messages
- Coded a Python program utilizing JSON to generate and securely store SHA-256 encrypted passwords

Technical Skills

Languages: Python, Java, Perl, C/C++, SQL (Postgres), JavaScript, Typescript, HTML/CSS, PHP, Swift
Frameworks: React, Node.js, Flask, JUnit, REST API, Flutter, Spring, Maven, Jupyter Notebooks, Agile, SCRUM
Developer Tools: Git, Docker, VS Code, IntelliJ, Linux, BitBucket, Vim, JIRA, Slack
Libraries: NumPy, TensorFlow, Keras, Kubernetes, PyTorch, Lambda