

Mahir Khandaker

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Skills

- C | C# | Java | JavaScript | Python | C++ | SQL | MATLAB | React.js | Node.js | Express.js | HTML5 | CSS3
- AWS | Jenkins | Git | GitHub | Postman | Cantata | MongoDB | PostgreSQL | Docker | Android
- Full-Stack | Backend | Frontend | Embedded Systems | Database Management | Machine Learning | Unit Testing | CI/CD

Professional Experience

Embedded Software Developer Co-op | Molex | Waterloo, ON, Canada | January 2022 – August 2022

- Enhanced the reliability and performance of a multi-threaded legacy codebase by refactoring it into 2 single concurrent processes in **C**, limiting the possibilities of race conditions and resulting in a 10% decrease in runtime.
- Designed and executed a comprehensive suite of unit and integration tests, covering various scenarios including edge cases and boundary conditions, to verify internal functionality, proper parameter usage, and accurate data handling.
- Demonstrated strong adherence to the **AGILE** methodology by actively participating in sprint planning, daily stand-ups, and backlog refinement. Collaborated with team members to promptly identify and resolve issues, ensuring efficient workflow, and timely achievement of sprint goals.
- Skills Utilized: C, Python, Cantata, Jenkins, QNX, Jira, Bitbucket, Git

Software Developer Co-op | TD Bank | Toronto, ON, Canada | September 2021 – December 2021

- Facilitated multi-team meetings to brainstorm new functions to meet the specific needs of internal employees. Resulted in the development of over 100 customized functions within the RSA ARCHER application.
- Leveraged **C#**, **MS SQL**, and the SQL Server Integration Services (**SSIS**) platform to seamlessly perform ETL pipeline processes. Processed multiple datasets spanning across various departments, covering active, deprecated, and their corresponding replacement functions, including their definitions. Streamlined the developmental process for internal employees, optimizing efficiency in function creation.
- Skills Utilized: C#, SQL, SSIS, RSA ARCHER, Jira, Bitbucket, Git

Full-Stack Developer | MAX Gala | Toronto, ON, Canada | June 2021 – August 2021

- Led a team that implemented a Q&A feature, empowering users to post and answer questions, resulting in a 30% increase in average user engagement on the website.
- Designed the feature's responsive front-end UI using **React.js**, **Bootstrap**, **JavaScript**, **HTML** and **CSS**.
- Used **Python**, **Amazon API Gateway**, **Amazon Relational Database**, and **AWS Lambda** to facilitate the seamless execution of REST API requests to perform CRUD operations to modify the webpage.
- Enhanced the functionality and performance of the web application by using pagination and lazy loading, resulting in 20% faster loading times and improved user experience.
- Skills Utilized: AWS (Amazon RDS, S3, Lambda, API Gateway), React.js, Node.js, JavaScript, Python, PostgreSQL, Postman, Docker, HTML, CSS, Bootstrap, GitHub, Git

Projects

Customized Python Trading Bot Full Stack Website | October 2023 – Present

- Created a **Flask/React** full stack website allowing users to craft their own trading bot and back test their strategy against the S&P500, NASDAQ and a Buy & Hold Strategy. Users can also view their realized profit/loss and save their strategies.
- Created API endpoint to calculate user profit/loss using stock data from Alpha Advantage API and the **Pandas** library.
- Skills Utilized: Python, Pandas, NumPy, Matplotlib, Flask, React.js, Node.js, JavaScript, Bootstrap, HTML, CSS, Git, GitHub

React Portfolio Website | June 2023

- Created a responsive React.js website, prioritizing optimal user experiences across diverse devices and screen sizes.
- Utilized Git and GitHub for precise version control and hosted site on Heroku for widespread accessibility.
- Skills Utilized: React.js, Node.js, JavaScript, Bootstrap, HTML, CSS, Git, GitHub, Heroku

iOS and Android React Native Parking App | May 2023 – Present

- Lead developer in a 4-member team creating a MERN stack Android and iOS app for streamlined parking space rental, utilizing Google Cloud for flexibility and scalability. Led frontend design and development, integrating the Google Maps API for visualizing available parking spaces within the app.
- Skills Utilized: Google Cloud, MERN Stack (MongoDB, Express.js, React, Node.js), JavaScript, Expo Framework

Education

Bachelor's in Electrical and Biomedical Engineering | McMaster University | Graduated April 2023

- Relevant Courses: Object-oriented programming in C, Data Structures & Algorithms in Java, Capstone Project