# Muhammad Zaman

(226) 751-5104 | mh2zaman@waterloo.ca | https://www.linkedin.com/in/muhammad-hamza-zaman/ | https://github.com/mhzaman-cs | Full Resume: https://www.mhzaman.com/resume.pdf 🗹

## TECHNICAL SKILLS

Languages: JavaScript, Java, TypeScript, Python, HTML/CSS, C, C++, C#, SQL (MySQL, MSSQL), R Frameworks and Tools: React, Node, Firebase, ASP.NET Core, REST API, Spring Boot, Angular, Bootstrap

#### EDUCATION

University of Waterloo

Waterloo, CA

Bachelor of Computer Science, Minor in Statistics

Expected Graduation: 2024

### EXPERIENCE

Achievers Inc

May 2022 – Aug. 2022

 $Software\ Developer\ Intern$ 

Toronto, ON

- Developed a React component library with 25+ standardized components to ease the development process
- Migrated external dependencies such as Material-UI out of the library by rewriting components which decreased load time by 8% and made it easier for the architecture team to stage and deploy the library to production
- Completed a wide variety of 30+ Jira tickets ranging from resolving bugs to creating independent components such as Icon and Checkbox Group, and had written documentation about their function and utilization
- Ensured the library met the WCAG 2.1 Accessibility standards by adding ARIA labels with proper tab indexing to components, and testing their accessibility with JAWS and NVDA screen readers
- Met and exceeded the 80% coverage threshold of JavaScript unit testing by writing 50+ React unit tests to ensure that the components and their attributes are working as expected

**SPARK** July 2021 – June 2022

Software Developer

Remote

- Created a multiple choice quiz section using **ASP.NET Core** as the back-end and an **SQL database** for storing the questions which were used in **800+ quizzes** taken by students
- Authenticated 200+ student accounts to access quizzes using ASP.NET Core with C# to validate credentials
- Set up automated emails which sent 2000+ emails to student accounts confirming registration, quiz results, etc.
- Developed an accessible front-end using **React** and **Bootstrap** to educate **500+ children** in developing countries
- $\bullet$  Reduced load time by 17% by code-splitting, utilizing CDNs, minifying code and removing unnecessary plugins
- Addressed previous **UX/UI design** issues and standardized all design outputs with a mobile-first approach which increased the satisfaction rate of survey respondents who accessed the website through mobile by 29%
- Supported 6 new members of the team by having pair coding sessions and providing online resources for learning

Data Scientist Intern

Remote

- Collected data of **65+** herbs from different sources including the National Library of Medicine using data crawling techniques through **Python** with libraries such as **Scrapy** and **Beautiful Soup**
- Processed 35+ unstructured data sets through libraries such as Pandas and NumPy for standardization
- Applied cluster analysis techniques such as K-means clustering to classify 100+ items into nutrient categories
- Assisted in the development of a **recommender system** to suggest items based on user interaction with clusters

#### Projects

Forex MongoDB, Express, React, Node, Firebase, Tailwind CSS, JWT

December 2021

- Full-stack MERN app featuring a discussion form based on Firebase that allows for P2P Currency Exchange
- Uses a MongoDB database to store login credentials with an Express.js server to handle user authentication
- Utilizes Fixer.io's API to display exchange rates for 170 currencies as recommendations on the dashboard
- Keeps user authenticated in order to retain access to the API and chat by using JWT signature verification
- React-based front-end is focused heavily on UX/UI by using frameworks like Tailwind CSS and PostCSS

Employee Manager 🗹 | Spring Boot, Angular, MySQL, REST API, Bootstrap

June 2022

- Full-stack CRUD application which allows for managers to store and edit information about employees
- Utilizes Spring Boot in Java on the back end to handle the logic related to managing employee data which is stored in the MySQL database, along with Angular in TypeScript and BootStrap in the front end for the UI
- REST controller is to make a REST API that uses HTTP requests to access and use data from the server