# Muhammad Zaman

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## TECHNICAL SKILLS

Languages: Python, R, JavaScript, Java, TypeScript, HTML/CSS, C, C++, C#, SQL (MySQL, MSSQL) Frameworks and Tools: React.js, Node.js, Material-UI, Bootstrap, Firebase, Tailwind CSS, REST API, Git/GitHub

# **EDUCATION**

## University of Waterloo

Waterloo, CA

Bachelor of Computer Science, Minor in Statistics

Expected Graduation: 2025

#### EXPERIENCE

Achievers Inc

May 2022 – Aug. 2022

 $Software\ Developer\ Intern$ 

Toronto, ON (Remote)

- 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
- Met the 80% coverage threshold of JavaScript unit testing by writing 50+ React unit tests
- Ensured the library met the WCAG 2.1 Accessibility standards by adding ARIA labels to components

SPARK

July 2021 – April 2022

Software Developer

Fremont, CA (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
- $\bullet$  Authenticated 200+ student accounts to access quizzes using ASP.NET Core with C# to validate credentials
- Developed an accessible front-end using **React** and **Bootstrap** to educate **500**+ children in developing countries

#### CrowdDoing

May 2020 - Aug. 2020

Data Scientist Intern

San Francisco, CA (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 **BeautifulSoup**, in order to provide data to the analytics team with the product's potential benefits, safety concerns, reactions, etc.
- Cleaned 35+ unstructured data sets through libraries such as Pandas and NumPy for data standardization
- Applied cluster analysis techniques such as **K-means clustering** to classify **100+** items by nutrients into categories for the recommendation engine so that only items within clusters are recommended
- Assisted in the development of a recommender system to suggest items based on user interaction with clusters
- Constructed the end-to-end system using **TensorFlow** for covering the entire stack from serving with **ScaNN** for retrieval, through ranking with **TF ranking**, to post ranking, while leveraging multitask learning in the process

# Projects

# Citadel Data Open 🗹 | Python, Plotly, Seaborn, Pandas

March 2022

- Wrote a report in a team of 2 about how investments in businesses and education affect traffic in major American cities and provided recommendations on how congestion can be reduced through investments in these areas
- Cleaned and structured multiple provided and external data sets with 1000000+ entries and used that data to come to statically significant conclusions about congestions in New York, NY, Austin, TX, and Washington, DC
- Graphs are generated using the Python libraries Plotly and Seaborn, and the data is organized using Pandas

# Stockify 🗹 | Python, Plotly, Seaborn, Pandas

May 2021

- Created a stock visualizer capable of displaying an interactive graph of any of the S&P 500 stocks with different comparisons such as Opening value, Daily High, Daily Low Price, Closing value, or Volume traded compared against the date from 2013-2018 based on a Kaggle data set
- The graphs are generated using the Python library Plotly and the data is organized using Pandas

# Amazon Reviews Scraper 🗹 | Python, Scrapy

July 2021

- Leveraged Python and Scrapy to scrape 10k+ customer reviews from different products based on ASIN number
- Utilized **Scrapy**'s built-in boilerplate and implemented the scraper components such as the HTML parser for scraping content on pages and the initiator which loops through the different products using **OOP principles**
- Added cool down and opened tabs in-browser to prevent the program from getting caught in Amazon's CAPTCHA