Muhammad **Zaman**

Software Engineer · Data Scientist · Full Stack Developer · Bachelor of Computer Science

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Skills & Awards

Languages: Python, JavaScript, R, C, C++, HTML/CSS

Frameworks and Tools: Pandas, Numpy, Scrapy, SciKit-Learn, TensorFlow, Plotly, Flask, Node, Express, React, Bootstrap, Git, Firebase, REST API

Awards and Scholarships: PPG Canada Scholarship (2021), University of Waterloo President's Scholarship (2021), CRC Robotics Leadership Award (2020), Les Prix du Mérite en Histoire (2019), Centennial Regional High School Principal's Honor Award (2020)

Experience

Achievers — *Remote*

Software Developer Intern — *May 2022 - Aug 2022*

- Developing an internal **React component library** for standardized development on the **UI Systems Team** while following the **Scrum** development process
- Completed a wide variety of **30+ Jira tickets** ranging from resolving bugs to creating standardized components such as **Icon** and **Checkbox Group**
- Ensure the library met the **WCAG 2.1 Accessibility standards** by adding **ARIA labels** with proper tab indexing to components, and testing them in **JAWS**
- Met and exceeded the **80% coverage** threshold of **JavaScript** unit testing by writing **50+ React unit tests** to ensure that the componentsare working as expected

SPARK — *Remote*

Software Developer — *July 2021 - PRESENT*

- Developed a user-friendly website using **React** and **Bootstrap** to educate **500+ children in developing countries**
- **Accelerated load-time by 17%** by code-splitting, utilizing CDNs, minifying code, and removing unnecessary content and plugins
- Addressed previous **UX/UI design** issues with a **mobile-first approach** which **increased the satisfaction** rate of mobile survey respondents **by 29%**
- Supported **6 new** members of the team by having **pair coding** sessions and providing online resources for learning

CrowdDoing — *Remote*

Data Scientist Intern — *May 2020 - Aug. 2020*

- 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.
- Processed and cleaned **dozens** of unstructured data-sets through libraries such as **Pandas** and **NumPy** in order to allow for data to be processed correctly
- Applied cluster analysis techniques such as **K-means clustering** to classify **100+ nutrients** into ingredients and categories for recommendation engine
- Assisted in the development of a **recommender system** to suggest medicinal foods based on user choices from the clustered data

Other Experiences: Teaching Assistant at Kumon (Apr 2019 – Aug 2020), President Elevate the Future Canada (May 2020 – May 2021)

Projects

Amazon Reviews Scraper — *Solo Project*

Common freelance opportunity, created because of its real world use and demand — *July 2021*

- Leveraged **Python** and **Scrapy** to scrape multiple product reviews from different products based on the unique ASIN number provided by Amazon
- Added cool down and open in-browser to prevent the program from getting caught in Amazon's CAPTCHA trap and continue downloading reviews

Citadel Data Open — *Group Project*

Submission for 2022 East-Coast Datathon hosted by Citadel and Correlation One — *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 municipal governments can help reduce congestion through investments in these areas
- The graphs are generated using the **Python** libraries **Plotly** and **Seaborn**, the data is organized using **Pandas**

Vaccinator — *Solo Project*

A fun remix of space invaders submitted to hack-cade hosted by MLH — *May 2021*

- Employed **Python** and **Pygame** to develop a game where the player is a vaccine with the goal of getting past as many outbreaks of Covid-19 as you can
- Implemented games components such as the vaccine (player), shots and viruses (enemies), using **OOP principles**

Forex — *Solo Project*

A Full-stack MERN app that features a discussion form that allows for Peer-to-Peer Currency Exchange — *December 2021*

- Created a chat using **Firebase** which allows for unlimited messaging where users are asked to post their desired and possessing currencies to establish trade
- Focused heavily on **UX/UI design** by using frameworks like **Tailwind CSS**, the front end is built using **React** and the back end with **Node.js**
- Uses a **MongoDB** database to store login credentials as well as **Express** to help facilitate in creating the server, which handles user authentication
- Web application includes authentication using **JWT signature verification** to keep the user logged in so that they may continue to use the API and chat
- Utilizes **Fixer.io's API** to display current exchange rates of commonly traded currencies on the dashboard accessible upon login

Education

University of Waterloo — *Waterloo, Canada*

Bachelor of Computer Science, Minor in Statistics — *Expected Graduation: 2024*

- Relevant Coursework: Functional Programming, Algorithm Design & Data Abstraction, Probability, Linear Algebra, Statistics (Advanced Level)
- Activities and Societies: Computer Science Club, Data Science Club, UW Cyber Security, University of Waterloo Finance Association