

# Muhammad Zaman

DATA SCIENTIST · FULL STACK DEVELOPER · BACHELOR OF COMPUTER SCIENCE

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## Awards & Skills

**Languages:** Python, JavaScript, R, C/C++, HTML/CSS, Racket.

**Frameworks and Tools:** Pandas, Numpy, BeautifulSoup, Scrapy, SciKit-Learn, Tensorflow, Plotly, Flask, Node.js, Express.js, React.js, Bootstrap, Git, Firebase.

**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).

## Education

### University of Waterloo

Waterloo, Canada

BACHELOR OF COMPUTER SCIENCE

2021 - 2026

- 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

**Other Institutions:** Science at Marianopolis College (2020-2021), Centennial Regional High School Talented & Gifted Program (2015-2020)

## Experience

### SPARK

Remote

FULL STACK DEVELOPER (PART-TIME)

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
- Standardized all design outputs with a **mobile-first** approach along with addressing previous **UX/UI designs** issues in order to ensure app uniformity
- Offered design ideas and supported newer members of the team by providing online resources to grow and develop skills

### CrowdDoing

Remote

DATA SCIENCE 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

### Elevate the Future

Montreal, Canada

PRESIDENT ETF CANADA

May 2020 - May 2021

- Elevate the Future is a student-run worldwide non-profit with the goal of helping students attain skills in Computer Science and Business
- **Founded and formed** the first Canadian branch of Elevate the Future, which held computer science workshops for youth across Montreal.
- **Held dozens of workshops** to teach the basics of vanilla front-end web development (**HTML, CSS, and JavaScript**) to attendees all across the world

**Other Experiences:** Customer Service Agent at Teleperformance (Jul 2021 – Sep 2021), Teaching Assistant at Kumon (Apr 2019 – Aug 2020)

## 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

### 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**

### Stockify

Solo Project

DATA VISUALIZATION

May 2021

- Created a stock visualizer capable of displaying an interactive graph of any 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
- The graphs are generated using the **Python** library **Plotly** and the data is organized using **Pandas**

### Forex

Solo Project

A FULL-STACK 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 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**
- Web application includes authentication using **JWT signature verification** in order to manage accounts and provide contact information in the forum
- Utilizes **Fixer.io's API** to display current exchange rates of commonly traded currencies on the dashboard accessible upon Login