Muhammad **Zaman**

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Skills & Awards

Languages: JavaScript, Java, TypeScript, Python, HTML/CSS, C, C++, C#, SQL (MySQL, MSSQL), R

Frameworks and Tools: Pandas, Numpy, Scrapy, MongoDB, Express, React, Angular, Node, Firebase, Spring Boot, JWT

Awards and Scholarships: PPG Canada Scholarship (2021), University of Waterloo President's Scholarship (2021)

Experience

Achievers Inc
Remote
Software Developer Intern
May 2022 - Aug 2022
- Developed an internal **React component library** with **25+ standardized components** on the **UI Systems Team**
- Completed a wide variety of **30+ Jira tickets** ranging from resolving bugs to creating standardized components such as **Icon** and **Checkbox Group**, and wrote 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 the **80% coverage** threshold of **JavaScript** unit testing by writing **50+ React unit tests** to affirm expectations
- 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

SPARK
Remote
Software Developer
July 2021 - June 2022
- Developed a user-friendly website using **React** and **Bootstrap** to educate **500+ children** in developing countries
- **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 mobile survey respondents **by 29%**
- Created a multiple choice quiz section using **ASP.NET Core** as the back-end for handling the logic related to determining quiz results, 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** with **C#** to validate credentials
- Set up automated emails which sent **2000+** emails to student accounts confirming registration, quiz results, etc.
- 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 Beautiful Soup**, to provide data to the analytics team
- Processed and cleaned **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+ nutrients** into and categories
- 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 efficient serving with **ScaNN** for retrieval, through ranking with **TF ranking**, to post ranking, while leveraging **multitask learning** in the process

Projects

Forex ↗
Solo Project
Full-Stack MERN app featuring a discussion form that allows for P2P Currency Exchange
December 2021
- Created a chat using **Firebase** which allows for unlimited messaging where users are asked to establish direct trade
- **React** based front-end is focused heavily on **UX/UI design** and uses frameworks like **Tailwind CSS** and **PostCSS**
- Uses **MongoDB** to store login credentials as well as **Express** to facilitate the creation of a user authentication server
- Web application uses **JWT signature verification** to keep the user logged in to retain access to the API and chat
- Utilizes **Fixer.io's API** to display current exchange rates of common currencies as recommendations on the dashboard

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 **ASIN** number
- Utilized Scrapy's built-in boilerplate and implemented the scraper components such as the **HTML** parser for scraping content on specific 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 trap

Employee Manager ↗
Solo Project
Full-stack CRUD application that allows managers to store information about employees
July 2022
- 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 used to build **REST API** which uses HTTP requests to access and use data from server
- Utilized **Spring Data JPA** to effectively develop persistence layer to communicate with the **MySQL** database

Education

University of Waterloo
Waterloo, Canada
Bachelor of Computer Science, Minor in Statistics
Expected Graduation: 2024
- Coursework: Functional Programming **(Racket)**, Algorithm Design & Data Abstraction **(C)**, Advanced Statistics **(R)**