

# Muhammad Marzouk Baig

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## EDUCATION

### University of Rochester

Bachelor of Arts, Computer Science

Graduated Dec 2024

- **Dean's Scholarship Award** Recognized for various Academic Achievements
- **Teaching Assistant** Introduction to Programming (Python) - Spring 2020
- **President Chi Phi Fraternity**, Kappa Delta Chapter Spring 2022 - Fall 2023

## EXPERIENCE

### 1010data (Ten Ten data)

New York, NY

Software Engineering Intern

Jun 2022 - Aug 2022

- Developed a Python SDK for the Client Interfacing Team, simplifying graphical query visualizations via Python-to-XML translation for seamless real-time integration in 1010's front-end portal, resulting in an internal approval rating of 97%
- Introduced new REST API endpoints, enhancing usability, streamlining operations, and reducing code size by over 30%
- Created a Web Automation script enabling Single Sign-On (SSO), providing users with seamless interaction via the API
- Collaborated with Product and Client Interfacing Teams to develop an interactive Tech Demos for various teams within the company as well as for clients including Procter and Gamble, and Dollar General
- Wrote detailed documentation, incorporating examples, visualizations, and tailored use-cases, both for developers and users

### Cronus

Rochester, NY

Full Stack Developer

Feb 2021 - Aug 2021

- Integrated Google Places API into the Cronus Mobile Application, implementing auto-fill functionality for address fields etc.
- Developed a two-step user sign-up process using React-Native components and Firestore Database, increasing sign-up ease
- Assisted in prototyping the Vendor Profile screen using Figma templates, contributing to 10+ pages across the application

### Simon Business School

Rochester, NY

IT Support Consultant

Jul 2023 - Dec 2024

- Delivered comprehensive technical support to faculty, staff, and students, resolving 100+ hardware and software issues monthly, troubleshooting complex problems, and ensuring 99% uptime for IT systems, utilizing Jira for ticket tracking
- Designed and developed application widgets to automate network-based workflows, utilizing CI/CD pipelines to test and deploy updates efficiently, while securely managing sensitive configuration details such as various network credentials
- Digitized IT documentation platform, boosting knowledge sharing by 30% and reducing training time for new employees

## PROJECTS

### Research Study

- Investigated the degree of gentrification in Rochester's neighborhoods, using machine learning techniques like logistic and linear regression to assess how proximity to private universities in Monroe County, NYS impacts said neighborhoods

### COVID Sentiment Analysis Project

- Developed a real-time sentiment analysis tool using Python to analyze COVID public opinion trends from tweets and news
- Analyzed trends and insights with advanced analytical techniques, leveraging Pandas and Matplotlib for data visualization

### Distributed Version Control System

- Collaboratively designed and implemented a distributed version control system in Rust, leveraging modular programming principles to ensure clean separation of concerns, maintainability, scalability, and efficient conflict resolution mechanisms

### AI-Powered Web Extension for Visually Impaired

- Created an AI-powered (OpenAI API) web accessibility extension featuring text extraction, summarization, and text-to-speech output, accessible via speech commands, and shortcuts (hot keys) for visually impaired users

## SKILLS

**Programming Languages:** Java, Python, C/C++/C#, JavaScript, Swift, SQL, Rust, R

**Technologies:** React, Next.js, X code, Firebase, SQL Server, Docker, Git, GitHub, SVN, Jira, Kubernetes, APIs, Visual Studio, Pandas, Balsamiq, Confluence, Excel, .NET, Django, Pytorch, Scikit-learn, Tensorflow, Matplotlib

**Programming and Development:** Object Oriented Programming, Machine Learning, Relational Databases, Data Structures, Algorithms, Test Driven Development, AI, Data Visualization, Data Analyses

**Methodologies and Other Skills:** Agile, Scrum, Kanban, Strong Verbal and Written Communication Skills, Leadership