Mohammed Faraz Saudagar

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Education

University of Guelph	Guelph, ON
Bachelors in Computing, Computer Science *GPA: 3.8*	Sep 2020 - Present

Technical Skills

Programming Languages:	C#, Python, JavaScript, HTML, CSS, Java, C++, SQL, Dart
Python Libraries:	Numpy, Pandas, Matplotlib, Scipy, PyTorch, spaCy
Frameworks:	.NET, WPF, React, NextJS, Flutter, Flask, Django, Ajax, Java Spring
Tools:	Github, Azure, Bitbucket, Docker, Playwright

Work Experience

Software Developer — Guelph, ON
Mantech Inc — Jan 2024 - Sep 2024

- Developed a new **WPF** desktop application (**C# and .NET 8**) to replace the legacy WinForms application, using **MVVM design pattern** achieving a **50%** increase in feature efficiency and significantly enhancing the user interface.
- Architected a **dynamic report editor** within the WPF application, enabling users to view, customize, and edit analytical reports, thereby improving data presentation and customization capabilities by **20%**.
- Engineered a **robust script editor** for the WPF application, empowering users to generate and execute complex, recursive scripts on robotic systems, which enhanced automation process efficiency by **30%**.
- Partnered with Lab and QC personnel to define software behavior and requirements, conducting practical testing and iterative improvements. This partnership reduced feedback loop times by **25%**, leading to quicker resolution of issues and enhancements.

Software Developer Co-op — Mumbai, India
MarsQuant - Quant Finance Start Up — May 2023 - Sep 2023

- Led the development of a robust full-stack SaaS trading platform, leveraging **NextJS, TailwindCSS and ChartJS** and expanded the user base by **15%**, leading to increased market share.
- Implemented a scraping bot that retrieves live NSE India option chain data which contributed to a **65%** increase in trade volume on the platform due to timely data updates using Python and Selenium.
- Devised algorithms to generate graphs based on implied volatility and open interest of live market option chain data to enhance the company's reputation as a trusted source for market analysis.

Research Associate Co-op — Guelph, ON
School of Engineering - University of Guelph — Sep 2022 - Dec 2022

- Developed graph visualization tools for data from more than 100 experiments across screws of different dimensions using **Python and libraries like Pandas, Numpy, Matplotlib, Plotly, etc**.
- Restructured client website to be more interactive using **JavaScript and Django** framework, which streamlined workflow of 3 client companies
- Published a research paper on analysis of experimental data of 16 Archimedes screw pumps

Software Developer Co-op — Guelph, ON
Global Burden of Animal Diseases — May 2022 - Sep 2022

- Engineered data science pipelines and tools using Python for report and graph generation used by 7 teams of researchers worldwide
- Analyzed animal species and breeds data from **200+** countries over 22 years for researchers to use using **Python** data science libraries and tools
- Engineered web scraping tools to scrape breeds data from multiple websites for more than 300 species

Projects

Rentr - A Rental Marketplace *Flutter, Supabase (SQL)* — 2023

- Founded a C2C marketplace for lending/renting household items to allow users to earn passive income, enabling a decline in consumerism.
- Developed over 2 days as part of a hackathon with 3 other teammates

Extra-curricular Activities

Director - Guelph Coding Community — 2022-2023

- Organized multiple coding and social events such as Leetcode events, gaming and social events