Aryan Rastogi

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Education

University of Waterloo *Waterloo, Ontario*

Candidate for Bachelor of Computer Science *September 2020 – April 2025*

Relevant Coursework: Algorithms, Data Structures and Management, Object Oriented Programming

Skills

Languages: C#, C, C++, Python, JavaScript, Java, SQL, R, VBA, HTML, CSS
Frameworks: React, Node.js, Flask, MongoDB, Express, GraphQL, Pandas, Numpy, PyTorch, Jest, Bootstrap
Technologies: Microsoft Office (Excel), G Suite, Git, GitHub, Jenkins, Postman

Experience

Boosted.ai *Toronto, Ontario*

Software Developer *May 2023 – August 2023*

- Managed and worked on **React** and **JavaScript** web platform, adding new functionality and fixing bugs as required
- Refactored web framework and design components in **React**, increasing user favorability by **10%**
- Created and integrated **GraphQL** endpoints for web server handling of user stock watchlist creation
- Implemented backend functionality for creating and editing stock watchlists using **Python** and **SQL**
- Leveraged **Postman** to create and deploy tests for new and previous web server endpoints handling user information

Canadian Imperial Bank of Commerce (CIBC) *Toronto, Ontario*

Software Developer *September 2022 – December 2022*

- Facilitated end-to-end creation and deployment of website for project management and handling using **Python** and **React**
- Utilized **Flask** to create endpoints for information handling and database connections
- Leveraged **SQLLite3** to build and maintain lightweight databases for client, employee, and project information
- Built and trained AI models to process and classify news articles using **PyTorch** in order to simplify tech research
- Developed software using **test-driven-development** in **Jest** to facilitate ongoing testing

BMO Capital Markets *Toronto, Ontario*

Quantitative Analyst, Global Markets *January 2022 – April 2022*

- Developed and implemented business solutions such as pricing and risk models using **C#**
- Created dashboard for displaying financial information by capturing and manipulating market data using **Python** and **React**
- Increased database query efficiency by **15%** through refactoring function calls with **SQLAlchemy** and **Python**
- Employed **Excel** and **VBA** to create spreadsheets for trader use in calculating stock correlations for a given basket
- Constructed tools to automate the processing of hundreds of incoming emails daily using **Flask** and **Python**

Toronto Transit Commission (TTC) *Toronto, Ontario*

Programmer Analyst *May 2021 – August 2022*

- Designed and deployed responsive Intranet webpages using **HTML, CSS, JavaScript, and Bootstrap**
- Created and maintained internal systems for user validation and polling using **C#, SQL,** and **SharePoint**
- Automated tests for frequently used SharePoint processes using **TestComplete**, saving 25 hours of manual testing monthly

Projects

Factor Investing Stock Portfolio Model

Python, Pandas, Numpy

- Utilized Eugene Fama and Kenneth French's factor prediction model amongst financial factors from other academic papers in order to create a stock portfolio based upon future returns
- Constructed various factors based on historical S&P 1500 stock returns using **Pandas** and **Numpy**
- Trained model to predict future returns using Fama-MacBeth regression and **machine learning (ridge regression)**
- Engaged in **data cleaning** and filtration in order to handle outliers and missing data
- Generated a portfolio with **positive return** over the market and Sharpe Ratio over chosen time period

Weathervibe

JavaScript, HTML, CSS

- Created a web application that uses location to create a Spotify playlist based on the weather at their current location
- Worked with various **APIs** in **Javascript** to retrieve and handle user location and weather
- Implemented the **Implicit Grant Flow** in order to handle user authorization and interact with the **Spotify API**
- Utilised **RESTful** commands to work with the Spotify API and return and analyze **JSON** information
- Designed and deployed a functional webpage using **HTML, CSS**, and **Javascript** to interact with user