Aryan Rastogi

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Education

University of Waterloo   *Waterloo, Ontario*
Candidate for Bachelor of Computer Science   *September 2020 – April 2025*
    Relevant Coursework: Data Structures and Algorithms, Object Oriented Programming

Skills

Languages: Python, JavaScript, C++, C#, TypeScript, C, Java, Kotlin, SQL, R, VBA, HTML, CSS
Frameworks: React, Node.js, Flask, MongoDB, Express, Jetpack Compose, Pandas, Numpy, GraphQL, PyTorch, Jest, Bootstrap
Technologies/Tools: Postgres, Git, GitHub, Jenkins, Postman, GCP, Docker, Microsoft Office (Excel)

Experience

Bank of Montreal   *Toronto, Ontario*
Software Developer - Incoming   *May 2024 - August 2024*

Boosted.ai   *Toronto, Ontario*
Web 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, helping increase client 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

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

BMO Capital Markets   *Toronto, Ontario*
Quantitative Analyst, Global Markets   *January 2022 – April 2022*
- Worked on dashboard for displaying sales information through capturing and manipulating data using Python and React
- Adjusted database call complexity by refactoring infrastructure using 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

TripWay
Kotlin, Jetpack Compose, SQL, GCP
- A social media desktop application that allows users to create, display, and explore trips and travel plans
- Used Kotlin to create endpoints for user, trip, and location data and GCP to host service and SQL database
- Created reactive frontend using Compose with functionality for viewing, creating and editing trips
- Incorporated Yelp and OpenAI APIs in order to help suggest trip locations and options to users based on previous trips
- Implemented user account and authorization functionalities including logging in, resetting password, and adding friends

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