

Justin Wang

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EDUCATION

University of Waterloo

Bachelor of Mathematics in Statistics, Combinatorics & Optimization

Waterloo, ON

September 2022 – Current

Coursework: Applied Linear Models, Stochastic Processes, Graph Theory, Calculus III

EXPERIENCE

Software Engineer

RBC Capital Markets

January 2024 – April 2024

Toronto, ON

- Engineered a robust PDF parser using **Python**, **VBA** and **PyMuPDF** to process over **200** financial documents daily while preserving table formatting
- Automated critical workflows using **VBA**, resulting in a **95%** improvement in productivity and **2 hours** of time save per day
- Developed methods to ensure consistency between legal documents and internal databases for trade confirmations and return sheets totaling over **100 million USD** daily

JP Morgan Chase & Co. Quantitative Researcher Job Simulation

Forage

July 2023 – August 2023

Remote

- Conducted financial modeling using Regression analysis in **Python** to optimize storage contracts, resulting in an **8%** reduction in storage costs
- Utilized linear and sinusoidal regression to analyze and extrapolate seasonal trends, resulting in a **6%** improvement in accuracy above estimates

Financial Analyst

RBC Capital Markets

April 2023 – August 2023

Toronto, ON

- Automated data extraction from company databases and Microsoft Outlook to update internal records, saving **10 000 dollars** in labour costs
- Designed, crafted, and maintained various **VBA** scripts to optimize trade position and dividend tracking, resulting in an improvement of **1000%** in update frequency
- Collaborated and communicated with cross-functional teams to review and rectify errors in trade documentation for over **10 000** trades weekly

PROJECTS

MNIST Handwritten Digit AI | *Python, PyTorch*

- Developed a hand written digit recognizer using **PyTorch** and the MNIST dataset, achieving **98.8%** accuracy
- Conducted error analysis and refined the model using threshold adjustments to achieve an F1 score of **0.96**

Wackypedia | *JavaScript, React, Firebase, Selenium*



- Prototyped and constructed a web scraper using **Selenium**, cross-referencing URLs with website traffic trackers database capable of scraping over **3000** unique entries in an hour
- Leveraged a **Firebase** database to store and manage data from the web scraper capable of handling over **300** requests a minute
- Created a **React** front-end to handle user requests and make API calls to the server

TECHNICAL SKILLS

Languages: Java, Python, C, C++, VBA, JavaScript, TypeScript, HTML, CSS, R, Bash, SQL

Libraries/Frameworks: pandas, NumPy, Matplotlib, React, Node.js, Flask, PyTorch, Selenium

Developer Tools: Git, GitHub Actions, Google Cloud Platform, Firebase, MongoDB, Docker