Tom Pan

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Education

University of Waterloo

September 2021 - Present

Candidate for Bachelor of Computing and Financial Management

Computer Science and Finance Double Major (1B Term)

Waterloo, Ontario

Summary of Qualifications

Languages: Python, C, SQL, HTML, CSS, JavaScript, R, Racket

Developer Tools: Git, GitHub, VS Code, Excel, Word, PowerPoint, MS Office

Technologies/Frameworks: Pandas, yfinance, Numpy, Scikit-learn, React.js, Matplotlib, SQLite

Experience

Red Robin Financial in

January 2022 - Present

Founder and CEO

Waterloo, Ontario

- Designed and built a stock trading platform to provide clients with an opportunity to gain practical experience in the stock market through managing a virtual portfolio
- Engineered various financial analytics tools to advise investors in portfolio asset management and investment decisions
- Developed innovative financial algorithms using machine learning, allowing investors to interactively explore the benefits of emerging technologies

Projects

AgileTrade | Python, yfinance, SQLite, Streamlit • •

January 2022 - Present

- Built a virtual trading platform for students to learn about the stock trading process in a fun and engaging manner
- Implemented user security and authentication measures to improve user privacy protection
- Analyzed, managed, and overhauled databases of user data to enhance current data storage methodologies
- Facilitated the growth of the platform by organizing and promoting students from local high schools to participate in our stock trading competitions

Aspen Algorithm | Python, Numpy, Pandas, Matplotlib, yfinance \(\mathbf{O}\)

December 2021 – Present

- Planned, designed, and built a quantitative portfolio allocation algorithm to automate portfolio management for financially ambitious clients
- Implemented expected return, standard deviation, and covariance analysis to find individual stocks with the highest growth potential
- Outperformed the S&P 500 by around 50% in a 4-week testing period

Stock Prophet | Python, Numpy, Pandas, Scikit-learn, Matplotlib, yfinance, Threading ? • November 2021 - Present

- Created a financial advisory tool to complement investment decisions by estimating a relative level of confidence for any given stock
- Applied support vector machine to train, predict, and reiterate on generated insights
- Achieved an accuracy level of approximately 95% on a list of over 1000 tickers

SARS Reality | R, HTML ()

May 2021 - June 2021

- Founded and engineered a COVID-19 information sharing platform to educate the public about the ongoing details surrounding the pandemic
- Conducted quantitative analysis on pandemic-related data such as the number of cases and vaccinations
- Promoted public awareness about COVID-19 prevention through planning, organizing, and delivering a series of instructional seminars to over 500 individuals

Awards

- Dean's Honour Roll
- David Johnston International Student Scholarship
- President's Scholarship of Distinction
- Ontario Scholar

Leadership / Extracurricular

SITS Tutoring Centre

October 2019 - June 2021

President and Co-Founder

Oakville, Ontario

- Conceptualized, designed, and produced media content intended for use in marketing campaigns
- Hired, trained, and supervised a team of 25 mentors, servicing a client base of over 200 mentees
- Accomplished an average GPA increase of over 10% across all clients