

G L E N N J O S E P H

EXPERIENCE

2023/ Quantitative Analyst

2024 BMO Capital Markets, Equity Derivative Desk - Toronto, ON

- Developed an RNN in Python using LSTMs to predict daily implied volatilities
- Implemented Kalman filtering and skew stickiness ratios to predict IVs and backtest against other prediction methods
- Resolved bugs affecting performance and reduced downtime by 80%
- Translated libraries across languages to F# to improve interoperability with .NET
- Distributed weekly reports of the financial options market for use in research
- Configured load distribution and authentication using nginx and Kerberos

2021 Full-Stack Developer

Fairly AI - Kitchener, ON

- Developed React components that became fundamental parts of the UX
- Created an AI visualization tool that helped banks communicate effectively
- Added a versioning system using SQLAlchemy to track risk management reports
- Helped onboard new team members to the company's coding environment

2022 Software Developer

1907 Foundation - Kitchener, ON/Florida, USA

- Used Angular to improve layout and further develop the existing app
- Improved database searching by adding custom fuzzy text search capabilities
- Created and connected various SQL queries to optimize searching performance
- Implemented feedback for UX and made suggestions for future demonstrations

PROJECTS

2022- Foster Estates

2023 Fractional Real Estate Investing Startup

- Pitched to Global Founders Capital, an investment firm with over \$3bn AUM
- Developed a business model facilitating investment into real estate between retail investors and homeowners
- Membership in Laurier Startup Lab which assisted in conducting in-depth market research across 100+ participants

2020 FLASH

First-Person Horror Game

- Custom ray tracing engine designed from scratch in Python
- Randomly generated map and item locations for every play-through
- Responsive computer opponent with different levels of difficulty
- Clear GUI and customizable settings for different levels of hardware

EDUCATION

2020 - 2025 • University of Waterloo - Bachelor of Computer Science in Data Science

SKILLS

Python, JavaScript, F#, C++, React, Flask, .NET, Keras

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