

Christopher Lee

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EDUCATION

University of Waterloo

Bachelor of Mathematics, GPA: 3.9

Waterloo, ON

Sept. 2024 – Aug. 2029

Wilfrid Laurier University

Bachelor of Business Administration, GPA: 3.9

Waterloo, ON

Sept. 2024 – Aug. 2029

EXPERIENCE

LEE LAW: Barrister, Solicitor, and Notary

Student Data Intern

Toronto, ON

June 2023 – Sept. 2023

- Visualized data for over 1,000 case matters using advanced Microsoft Office techniques.
- Streamlined and analyzed a complex filing system to improve data accessibility.

FTC Team 19446

Business Coordinator & Programmer

Markham, ON

June 2023 – July 2024

- Led sponsorship acquisition and applied programming expertise to support robot development.
- Contributed to securing regional competition victories and advancing to the provincial stage at FIRST.

PROJECTS

Sentivest: Sentiment-Based Portfolio Optimization

March 2025

- Integrated FinBERT for real-time sentiment analysis of financial news and data.
- Applied the Black-Litterman model to dynamically adjust stock allocations and reduce portfolio risk.

Hidden Markov Model Market Regime Detection in Rust

March 2025

- Developed a Rust-based HMM to identify market regimes (bull, bear, neutral) using historical SPY price data.
- Implemented the Baum-Welch algorithm for training and the Viterbi algorithm for state prediction.
- Compiled a comprehensive research report with data visualizations detailing model performance and regime transitions.

Monte Carlo & Heston Model Simulations in Rust

March 2025

- Engineered simulations using Monte Carlo and Heston stochastic volatility models to assess financial risk (VaR).
- Utilized asynchronous processing to boost computational efficiency and visualized simulation outcomes.
- Authored a detailed research report outlining methodology and iterative improvements.

AWARDS

Philosophy Academic Achievement Award

July 2024

- Achieved the highest mark in HZT4U1: Philosophy – Questions and Theories (100%).

Canadian Senior Math Contest Distinction Award

July 2024

- Recognized for scoring in the top 25% nationally on the Canadian Senior Math Contest.

SKILLS & INTERESTS

Skills: Rust, Java, Microsoft Excel, Computational Mathematics, Quantitative Analysis

Interests: Photography, Philosophy, Statistics & Probability