Warren Liu

Chicago, IL | +1-437-264-4688 | warrenliu@uchicago.edu | LinkedIn

EDUCATION

The University of Chicago

Chicago, IL

Master of Science in Financial Mathematics

Expected December 2025

- Courses: Portfolio Theory & Risk Management, Python, Option Pricing, Probability & Stochastic Processes
- Awards: Maroon Scholarship

University of Toronto

Toronto, ON

Honours Bachelor in Science (GPA: 3.72/4.00)

June 2024

Double Major in Computer Science and Economics

- Courses: Algorithms, Data Structures, ODEs, Multivariate Calculus, Statistics and Probability, Econometrics
- Awards: CS Summer Research Award Nominee (2021), Dean's List (Every Year)

SKILLS

Computing: C, C++, Python, Java, JS, R, SQL, Linux/UNIX, JS frameworks, Spring Boot, Kubernetes

Knowledge: Machine Learning, Econometrics, Financial Markets, Statistical Analysis, Mathematical Modelling

Trading Products: Structured Products, Commodities, Cryptocurrency, Fixed Income, Equities, Options

PROFESSIONAL EXPERIENCE

RBC Capital Markets, Global Equity Linked Products

Toronto, ON

Full Stack Software Developer (Co-op)

May 2022 - August 2023

- Leveraged Spring Boot REST and Kubernetes to modernize a legacy service and run it on RBC's in-house cloud infrastructure
- Set up DevOps pipeline of said service, integrated unit testing within release pipeline, and integrated app within existing ELK stack infrastructure to improve service troubleshooting abilities and service uptime
- Released 10+ key features in sales/trade support for the Equity Linked Product group
- Planned and executed key software lifecycle events, such as weekly releases, key bug fixes, and emergency fixes

Statistics Canada, International Accounts and Trade Division Junior Analyst (Co-op)

Ottawa, ON

May 2021 - August 2021

- Collected and analyzed data to classify e-Commerce transactions and examine trends within commodity markets in Canada; recommended future data collection methodologies to enhance internal data quality
- Automated processes using R, SAS, PowerBI, and Python to query, parse, clean, and visualize data to display advanced analysis near instantaneously for analysts scrutinizing Canada's net exports within different commodities

ACADEMIC EXPERIENCE

Department of Computer Science, University of Toronto

Toronto, ON

Research Student - Reproducing Side Channel attacks on DDR SDRAM

January 2024 - May 2024

• Experimented to find feasibility of the timing side channel attack RowHammer on Apple Silicon

Teaching Assistant - Various Roles

September 2021 - April 2024

• Led tutorials and office hours, graded and mentored students on software design and development, Java skills, and basic systems programming for Introduction to Software Design and Introduction to System Programming

EXTRACURRICULAR

St Michael's College, University of Toronto

Toronto, ON

Elected VP of Religious and Community Affairs and Senior Mentor

May 2021 - April 2022

- Planned and executed 3-5 successful events and initiatives to improve wellbeing within the community
- Supervised a group of 5 mentors and ensured they effectively guided the 5-10 freshmen they were assigned.

ADDITIONAL INFORMATION

Language Skills: Natively proficient in Mandarin Chinese. Limited proficiency in French Interests: Motorsports, Music, Hiking, Cycling, Swimming, Running, Community Service