Richard Meng

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Education

University of Waterloo **September 2025 - June 2030**
Bachelor of Computing and Financial Management (Honours, Co-op) *Waterloo, ON*

- Double Major in Computer Science and Finance
- Cumulative Average: 92.60% | Recipient of President's Scholarship of Distinction
- Relevant Coursework
  - ∗ Functional Programs (CS) (93%)
  - ∗ Financial Data Analysis (90%)
  - ∗ Calculus (92%)
  - ∗ Linear Algebra (95%)
  - ∗ Accounting (93%)

Experience

Co-op Software/Game Developer **June 2024 – September 2024**
No Fuss Tutors (Startup) *Toronto, ON*

- Built and shipped interactive educational games used by 500+ students using React and Konva
- Collaborated in a fast-paced 5-person startup team environment using Git/GitHub for version control
- Optimized UI and game logic to reduce load/runtime by 2-3 seconds, improving responsiveness for students

Mathematics, Physics, and Computer Science Tutor **November 2022 – June 2025**
Toronto District School Board *North York, ON*

- Raised student averages through structured coaching and personalized feedback from around 70% to over 85%
- Coordinated math and data structure lessons for 10 students, improving independent problem-solving skills
- Adapted real-time teaching strategies to meet diverse learning needs, reinforcing leadership and communication skills

Projects

RouteVision (CxC AI 2026 Winner) | *Python, React, FastAPI, YOLOv8, OpenCV, Gemini* **February 2026**

- Built a Full Stack AI-powered American Football analysis tool, scoring receiver openness and quarter decision making
- Built a computer vision system analyzing 1000+ clips to detect player positioning and generate insights
- Integrated Gemini AI API, producing live and relevant insights on receiver positioning and quarterback decisions

RecycleRight | *Python, TypeScript, React, FastAPI, YOLOv8, Backboard.io* **November 2025**

- Developed a YOLOv8 computer vision model to give feedback on recycling and garbage, trained on 2000 images
- Integrated live web-socket tracking and feedback to simulate real-time recycling and garbage sorting at 60 FPS
- Used Gemini AI API to provide tips within the feedback to enforce future independent recycling abilities

ReelSense | *Python, scikit-learn, pandas, NumPy, TMDB* **December 2025**

- Pioneered a content-based movie recommendation system with scikit-learn, providing top 6 recommendations
- Used plot description vectorization and cosine similarity with pandas to compare results across 5000+ films
- Personalized results using user-selected keywords, genres, themes, and moods, comparing to TMDB API results

Stock Robo Advisor | *Python, pandas, NumPy, yfinance, SciPy, Matplotlib, Jupyter Notebook* **November 2025**

- Implemented a portfolio optimizing pipeline using SciPy (SLSQP) to compute 10-25 optimal asset weights
- Improved asset-weight optimization and run-time efficiency by 2x using multithreading and worker pools
- Optimized weights using risk-adjusted returns, visualizing outperformance of the S&P 500 by 1.70% in December 2025

Technical Skills

Languages: Python, Java, C, Racket, TypeScript, JavaScript, HTML/CSS, Bash, NodeJS
Libraries: OpenCV, YOLOv8, FastAPI, pandas, NumPy, SciPy, scikit-learn, Matplotlib, yfinance, numpy-financial
Frameworks/Tools: React, Linux, Jupyter Notebook, Git, Bootstrap, Flask, Plotly, Streamlit, Konva, VS Code, Django

Awards

CxC AI Hackathon - Most Technically Impressive Project **February 2026**
Most Technically Advanced / Biggest Wow Factor - RouteVision *Waterloo, ON*

Nationals in Simon Fraser University Coding League **June 2024**
Achieved National Distinction *Canada*