Ethan Yang

linkedin.com/in/ey6 | github.com/e-yang6

Seeking a software/quantitative engineering internship to apply strong C++/Python, mathematical modelling, and problem-solving skills to high-performance, data-driven systems.

### **EDUCATION**

### University of Toronto

Toronto, ON

Bachelor of Applied Science in Computer Engineering (Expected 2030)

 $Sept.\ \ 2025-Present$ 

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SHAD Program - University of Prince Edward Island

Charlottetown, PEI

Selective national enrichment program in STEM, innovation, entrepreneurship, and leadership

July 2024

#### EXPERIENCE

Cotti Coffee

Toronto, ON

Barista

 $July\ 2025-Aug.\ 2025$ 

- $\circ \ \ \text{Delivered high-quality service in a fast-paced environment while managing multiple simultaneous orders.}$
- o Improved workflow efficiency by streamlining preparation sequences and minimizing downtime.

## Toronto Thunderbolts Volleyball Club

Toronto, ON

Volleyball Coach

Sept. 2024 - Aug. 2025

- Planned and led structured training sessions, mentoring athletes aged 7–14 to improve performance.
- o Developed game strategies and promoted communication, teamwork, and discipline.

# PROJECTS

- Stock Price Simulation and Risk Analysis: Developed a C++/Python model using geometric Brownian motion and Monte Carlo simulations (10k+ paths) to analyze price dynamics and risk; visualized outcomes with Matplotlib.
- Bond Pricer: Implemented a C++ fixed-income pricing engine with support for coupons, YTM, duration, and convexity; validated results using numerical methods and test cases.

# ACTIVITIES & LEADERSHIP

#### Robotics for Space Exploration (RSX), University of Toronto

Toronto, ON

 $Software\ Developer$ 

Sept. 2025 - Present

• Developing robotic control software using Python, C++, and ROS for autonomous space systems.

### Music Council – Milliken Mills High School

Markham, ON

President

June 2024 - June 2025

• Led a 25-member executive team to organize concerts and school-wide events, raising over \$10k for the school's music department.

### DECA – Milliken Mills High School

Markham, ON

Trainer

June 2024 - June 2025

o Coached members in business case analysis and presentation, contributing to provincial qualifications.

#### SKILLS & ADDITIONAL INFORMATION

- Programming Languages: C++, Python, Java, JavaScript, HTML, CSS
- Libraries & Tools: NumPy, Matplotlib, Git, ROS
- Relevant Coursework (planned/ongoing): Data Structures & Algorithms, Discrete Mathematics, Linear Algebra, Probability & Statistics, Digital Systems, Object-Oriented Programming
- Honours: Canadian Senior Mathematics Contest & Canadian Computing Contest Distinction (Top 25% in Canada), Waterloo Pascal Math Contest Honour Roll & Medalist (Top 115 in Canada), DECA ICDC Qualifier, National Volleyball Silver Medalist (15U), UofT Engineering Entrance Scholarship, IB Diploma
- Languages: English (Fluent), Mandarin (Full Professional Fluency)
- Interests: Algorithmic trading, financial markets, global macroeconomics, competitive volleyball, music production, robotics, behavioral strategy