JULIAN ZHANG

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EDUCATION

University of Waterloo   (Sept 2024 - Apr 2029)
Bachelor of Computing and Financial Management (CFM) | *President's Scholarship of Distinction*

University of Toronto Schools   (Sept 2018 - June 2024)
Ontario Secondary Schools Diploma | *Cumulative GPA: 4.0*

EXPERIENCE

Oakville Centre For Vision - Software Engineer   (May 2024 - Sept 2024)
- Created a web platform for eye-tracking goggles designed for analyzing vision patterns in pro athletes under the supervision of optometrist Dr. Ronald Gall
- Focused on data analysis of gaze vectors from tests aimed at identifying saccades and fixations
- Collaborated with team to rewrite legacy codebases with more than **6000 lines**

University of Toronto Clean Energy Lab - Research Assistant   (June 2022 - Sept 2023)
- Used Crystal Graph Convolutional Neural Network (CGCNN) to examine trends in chemical properties
- Analyzed results and utilized them for material discovery aimed at producing cleaner energy to mitigate the effects of climate change
- Presented findings to Prof. Oleksandr Voznyy and PhD Students

Canadian National Debate Team - Member   (May 2023 - Aug 2024)
- Selected as one of 12 debaters nationwide to represent Canada at the Belgrade World School Debating Championship (WSDC) 2024
- Compiled research in politics, IR, economics, and competed at international tournaments
- Hosted 5+ debate tournaments attracting **500+** participants and raising **$10,000+** for charity

PROJECTS

- **SignWave (JamHacks VII Winner):** An AI text-to-Sign Language translator for the deaf and hard of hearing. Converts text and audio inputs into hand animations. (OpenCV, Flask, MediaPipe, Whisper)
- **Common Ground:** An interactive social media graph visualization of Twitter / X followers to help users find connections. Includes LLM recommendations through OpenAI API. (D3.js, React.js, Vite, Groq)
- **zhaju.github.io:** My personal website, blog, and repository of course notes from high school and university. Currently helping **50+ users** with school (HTML/CSS, TypeScript, Node.js, Quartz)

SKILLS

- **Languages:** C/C++/C#, Python, Racket, Java, JavaScript, HTML/CSS, LaTeX
- **Libraries:** React, Node, NumPy, matplotlib, pandas, Yahoo Finance, PyTorch, TensorFlow
- **Developer Tools:** Git, GitHub, Conda, VSCode, PyCharm, CLion, Jupyter Notebook
- **Certifications:** Supervised Machine Learning, Advanced Learning Algorithms, Unsupervised Learning

SELECTED AWARDS

- JamHacks VII (Largest Canadian high school hackathon) - **First Prize Overall, Best use of GitHub**
- American Invitational Math Exam (AIME) Qualifier - **Top 8% of Participants Worldwide**
- Canadian National British Parliamentary Debate Championship - **1st speaker and 1st team**
- Munk Debates ReSolved Global Debate Competition - **Champion, received $5,000 prize**