

Angela Zhou

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Education

University of Waterloo — GPA 3.98 / 4.0

Sept 2024 - Apr 2029

Bachelor of Applied Science in Mechatronics Engineering

- **Website Director:** Programming UI/UX redesign for the Engineering Society website, serving 10K+ users.
- **Sponsorship Committee Member:** Allocated \$9,000 to 16 design teams by evaluating technical merit.

Experience

Cloud 5G Software Engineering Co-op

Jan 2025 - Apr 2025

Ericsson

- Built a **Shell Script** CLI tool to automate CI test commands, reducing setup time by **70%** and eliminating manual input errors, saving the team 10+ hours per week.
- Developed a **Python source code analyzer** to extract error roots using addr2line and internal logs, cutting troubleshooting time by **20%**.
- Engineered CLI logging tool organizing data from **Openshift Clusters** using Bash/Python, improving readability and root-cause tracing across development pods.
- Deployed a **Grafana dashboard** displaying real-time container states and warning logs using **Loki**, parsing from multi-line **Kubernetes** logs.

Programming and Robotics Instructor

Apr 2024 - Jul 2024

Exceed Robotics

- Reduced downtime for **15+** VEX IQ and Lego EV3 robots by introducing a preventative maintenance schedule, boosting availability by **30%** for weekly classes.
- Delivered a 10-week robotics curriculum in **C++** and **Arduino** to **70+ students** through hands-on projects such as autonomous line followers.
- Led **Python game development** lectures, focusing on object-oriented programming and game development, leading to a **95%** project completion rate.

Team Captain and Design Lead

Jun 2022 - Feb 2024

VEX STL Ghost 82855G

- Led a 10 member VEX Robotics team to **2x provincial qualifiers**, improving robot speed by **15%** through optimized gear ratios and weight distribution, **beating 40+ teams** across Ontario.
- Modeled and built two competition robots in Fusion360, reducing assembly time by **30%**.
- Pioneered a structured documentation system that streamlined team communication, increasing workflow efficiency by **40%** and setting a standard for future seasons.

Projects

Discord Leetcode Bot — Node.js | Discord.js | REST APIs | Pella

2025

- Programmed a full-stack Discord bot for **4,000+ users** in the Leetcode community, automating retrieval for daily challenges, streak tracking, and coding resources, receiving positive feedback from 50+ active users.
- Deployed to Pella for 24/7 uptime and event-driven scaling, enabling real-time responsiveness without manual intervention.

BYTE: Autonomous Food Delivery Robot — C | EV3 | Github

2024

- Led a 4 person capstone project to implement precise line tracking, real-time audio commands, and dynamic color-based item selection.
- Architected GitHub workflow with feature branches and PRs, **reducing merge conflicts by 20%**.

Skills

Programming Languages: JavaScript, HTML/CSS, Python, Java, C++, Bash

Tools: Git, Gerrit, GitHub, Jenkins, Jira (Agile), Grafana, Prometheus, Loki, Moshell

Platforms: Linux, Docker, Kubernetes, OpenShift