

# Miranda Yin

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## WORK EXPERIENCE

### Software Developer Intern - Crash Safety

Sep 2023 - Dec 2023

*Tesla, Palo Alto CA, U.S.*

- Architected pytest scripts with documentation for a hardware-in-the-loop tester to validate a microcontroller for safety-critical equipment
- Debugged safety-critical software and hardware leading to higher reliability
- Set up Jenkins CI pipeline for automated testing regularly with a HIL tester

### Scientific Computing Research Assistant

May 2023 - Aug 2023

*UBC Department of Computer Science, Vancouver BC*

- Conducted literature review of current research on topics on numerical linear algebra
- Developed a novel solver for sparse symmetric indefinite linear systems using Matlab, C++, and Fortran

### Software Developer Intern - SAP Analytics Cloud

Sep 2022 - Apr 2023

*SAP Canada, Vancouver BC*

- Worked with team to develop new features in TypeScript for a complex web app
- Communicated with customers to triage, troubleshoot, and fix bugs
- Wrote and maintained Jasmine integration tests and Selenium end-to-end tests

### Undergraduate Teaching Assistant

Sep 2021 - Dec 2024

*UBC Department of Computer Science, Vancouver BC*

- Teaching assistant for CPSC 121: Models of Computation and CPSC 320: Intermediate Algorithm Design and Analysis
- Guided over 20 students each during weekly laboratory meetings of hands-on learning with circuits or worksheets including dynamic programming and NP-completeness

### Air Cadets Air Operations Staff

Aug 2019 - Present

*Department of National Defence, various locations BC*

- Works in a team to manoeuvre and fly gliders in a high-activity airfield environment

## PROJECTS

### Regex Golf | HTML/CSS, JavaScript | [github.com/yin132/regex-game](https://github.com/yin132/regex-game)

Feb 2023

- Created web app to help students learn regular expressions through gamification

### Altimeter and Variometer | C++, Circuit Design, I2C | [github.com/yin132/arduimeter](https://github.com/yin132/arduimeter)

Feb 2022

- Developed an altimeter and variometer in C++ using an Arduino Pro Mini, working within the constraints of 2 kibibytes of RAM and an 8 megahertz clock speed

## EDUCATION

### University of British Columbia, Vancouver

Sep 2020 - May 2025

*Year 4, B.Sc. Combined Honours Computer Science and Physics | 93.9% CS average*

## SKILLS

#### Languages

C, C++, Python, Java, MATLAB, JavaScript, Fortran

#### Testing

C++ Test Driver Script, JUnit, Jasmine, pytest

#### Libraries/Frameworks

React, REST API, JQuery

#### Tools/Technologies

HTML/CSS, Git, GDB, SQL, Jenkins