

# Catherine Wu

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## Summary

Fast-learning, creative-minded third-year software engineering student with 3+ years of development experience in various technology stacks. Has a keen interest in **large-scale distributed systems**.

## Education

**University of Waterloo** | Bachelor of Software Engineering

**Anticipated Graduation: April 2025**

## Technical Skills

### Languages

C, C++, Java, JavaScript/TypeScript, Go, Kotlin, Python, Assembly

### Frameworks and Tools

Bash, Git, MongoDB, SQL, Node.js, React.js, Vue.js, Express.js, Django, AWS

## Work Experience

### Microsoft

**May 2023 - Present**

Software Engineer Intern | Windows + Devices

Redmond, Washington, US

- Prototyped new features with **modern C++** and **XAML** for the Windows shell.

### Morgan Stanley

**September 2022 - December 2022**

Software Engineer Intern | Wealth Management Technology

Calgary, Alberta, Canada


- Worked with a large-scale equity management software **Java EE** and **Oracle SQL Database**.
- Refactored legacy website front end implemented with Google Web Toolkit and Java Spring frameworks into React single-page applications to **improve code readability** and **reduce coupling**.
- Conducted **integration tests in Java** and utilized **agile scrum methods** to deliver high-quality code commits.

### eBay

**December 2021 - March 2022**

Software Engineer Intern | Engineering Ecosystem & Experience

Shanghai, China

- Implemented a directed acyclic graph visualization library with **TypeScript**. The library has been used in **3 internal projects** and **has shortened more than 70%** of the code for rendering flow charts and tree-structured graphs. 
- Led the design of a new CD pipeline editor frontend supporting advanced features such as adding parallel tasks and node drag and drop with **React.js** and **Redux**.

### Hokdo (MiraclePlus F21)

**October 2021 - November 2021**

Software Engineer Intern

Remote

- Coded two web pages in a customer relationship management MVP **showcased to 1000+ potential investors** on MiraclePlus Demo Day with **Vue.js** (frontend) and **Express.js** (RESTful API server).
- Built and deployed a **responsive server-side rendering** official website displaying product highlights and providing a chat widget using **React.js**, **Amazon EC2**, and **Nginx**.

### Xiaomi Technology

**May 2021 - August 2021**

Software Engineer Intern | MIUI Mobile Operating System

Nanjing, Jiangsu, China

- Developed **3 new features** (a new page for front-camera-related settings, toggle logic improvement, and refresh rate settings improvement), which have been rolled out to approximately **80 million users globally**.
- Debugged and fixed 50+ issues regarding searching, accessibility support, Android Monkey crashes, layouts, and Application Not Responding errors in Xiaomi mobile system apps.

## Projects

**KWCSSA Voting System** | A Fullstack Web App 

**October 2022**

- Architected a **MERN-stack** system that utilized **Express.js** to create a **RESTful API server** and supported 200+ audience voting for their favourite performances in a talent show hosted by KWCSSA.
- Implemented the core feature of displaying real-time voting results with **Socket.IO**.

**Monkey Assistant** | Raspberry Pi Photography and Social Media Assistant 

**October 2020 - November 2020**

- Built a graphical user interface for taking selfies, applying filters and uploading pictures with Python **PyGame** and **PiCamera** libraries.