

# Nina Zhang

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## SKILLS

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**Languages:** C++, C, Java, Python, JavaScript, HTML/CSS, Racket

**Technologies/Libraries:** Git, Bash, Linux, Amazon Web Services, Google Firebase, Node.js, Apache POI, PyGame

## EXPERIENCE

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**Undergraduate Research Assistant | University of Waterloo** September 2023 – December 2023

*Python*

*Waterloo, ON*

- Mentored by Joy Idialu and supervised by Professor Jo Atlee worked on the detection of AI-generated code
- Extracted coding problems from documents to structured JSON format to facilitate automated solution generation
- Developed **Python** scripts to extract lexical features of code to help contrast AI and human code
- Utilized scripts and Chat-GPT to generate solutions to online coding problems to compare to human solutions

**Android HMI Software Developer | Ford Motor Company** May 2023 – August 2023

*Java, Kotlin, Linux, Jira*

*Waterloo, ON*

- Modified and overlayed UI components for the Ford Car Infotainment System
- Developed unit tests for various UI components and increased code coverage for widgets **by 200%**
- Resolved visual defects for the Ford Car Infotainment System to ensure code reliability and functionality
- Created documentation and guides on unit testing and resolving RTL defects to assist with onboarding

**Software Developer (Volunteer) | BeaverWithU** July 2022 – August 2022

*Java, Google Firebase, Android Studio*

*Markham, ON*

- Developed an android app using **Java** in Android Studio that helped students to find volunteer opportunities
- Led and directed two other members to develop the front end of the app
- Used **Google Firebase** as a database aimed to store 100+ volunteer opportunities and 200+ users' data
- Integrated **Apache POI** to parse and display updated volunteer information in real-time

## PROJECTS

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**StudyBuddy | JavaScript, HTML, CSS, AWS(S3, EC2, DynamoDB), Node.js**

- Developed a website deployed on **AWS** using S3 and EC2 services with a back-end written in **JavaScript**
- Optimized user experience on a responsive todo-list written in **HTML/CSS** with smooth transitions
- Leveraged JavaScript and JSON objects to store and display todo-list from local storage automatically
- Integrated **AWS DynamoDB** and JSON objects for users to store and read todo-list from online
- Improved on-time task completion of users by helping users to remember tasks

**Music Instrument Sign In/Out App | Java**

- Designed and developed a **Java** desktop app with **Java GUI** allowing teachers to search for instruments and check their borrowing history
- Stored sign-in and sign-out history of instruments on files and read from files to display history by using java.io
- Utilized **object-oriented programming principles** such as encapsulation to prevent history corruption

## AWARDS

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**UW Alumni Women in Technology Entrance Scholarship (\$5000)**

**University of Waterloo President's Scholarship of Distinction (\$2000)**

**Pierre Elliott Trudeau High School Academic Accomplishment Award**

- Awarded to the student with the highest academic achievement in the graduating class

**Distinction in Euclid Contest (math contest, top 25% of 20000+ contestants)**

## EDUCATION

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**University of Waterloo**

*Waterloo, ON*

*Bachelor of Computer Science*

*September 2022 – June 2027*

- Cumulative GPA: 94.25%
- Relevant Coursework: Object-Oriented Software Development, Tools and Techniques for Software Development, Elementary Algorithm Design and Data Abstraction, Functional Programming