

Nina Zhang

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SKILLS

Languages: C++, C, Java, Python, JavaScript, HTML, CSS, Racket, SQL

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

EDUCATION

University of Waterloo

Waterloo, ON

Bachelor of Computer Science

September 2022 – June 2027

- Cumulative GPA: 94.25% (3.99 GPA)
- Relevant Coursework: Object-Oriented Software Development, Elementary Algorithm Design and Data Abstraction, Tools and Techniques for Software Development, Functional Programming, Introduction to Optimization

EXPERIENCE

Undergraduate Research Assistant | University of Waterloo

September 2023 – December 2023

Python

Waterloo, ON

- Worked on the detection of AI-generated code under mentorship of Joy Idialu and supervised by Professor Jo Atlee
- 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 overlaid 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

Strategy Board Game | C++

- Developed a two-player board game using **C++** and object-oriented programming principles
- Used various design patterns to improve code reusability and maintainability
- Wrote extensive test cases to ensure the robustness of the game code

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

AWARDS

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

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

WiCS Early Research Experience Award (\$1000)

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)