Lexie Zhang

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SUMMARY

Fast-learning 2nd year software engineering student and **GHC 23 virtual attendee** with 1+ years of experience in various technologies, seeking **winter 2024 / spring 2024** software development internships.

SKILLS

Languages C, C++, Python, Java, C#, HTML, CSS, JavaScript, SQL, VHDL, TypeScript
Technologies ASP.NET, React, Linux, OpenCV, Firebase, GTest, Unity, NumPy, REST API, AWS, Azure

EDUCATION

Bachelor of Software Engineering, University of Waterloo 2022 - Present

- **Dean's Honours List, CGPA: 88.81%(3.9/4.0)**
- Relevant courses: Object-oriented development(OOP), Data Abstraction & Implementation, Data structures, Algorithms, Complexity theory, Database, Scripting, Optimization

EXPERIENCE

Full Stack Developer, Toronto Transit Commission May. 2023 – Present

- Developed a comprehensive financial web application, enabling data categorization, storage, and report generation from user-uploaded files
- Leveraged **C#** and **ASP.NET MVC** for back-end development, executed **SQL** queries for database alteration
- Employed **Telerik Kendo Grid** and **JavaScript** to craft user-friendly web interfaces
- Refactored **30%** of the legacy codebase, resulting in **15%** fewer maintenance-related issues

Software Developer, Project: Human City Jan. 2023 – Apr. 2023

- Used **C#** for storing model in **Unity engine** and generating **sprites** of real-world objects for an **AR** app
- Trained pre-trained **YOLO** model to load **TensorFlow** data graph for real-time **object Identification**
- Implemented camera features for **gesture detection** and increased precision rate by **11.6%**
- Improved machine learning model by **image mix-up** technique and reduced the error by **11%**

PROJECTS

Autonomous Vehicle, Python

- Implemented multiple functions such as color selection, gray scale, and trackbar with the **OpenCV** library in a camera module for a vehicle to raise **lane detection** capability by **16%**
- Enabled the car to sense its environment and perform smooth movement without human input
- Leveraged the **Raspberry Pi** to establish the connection between the software, motor module, and camera module, allowing for seamless communication and coordination among the different components of the system

To-Do List App, HTML, CSS, JavaScript

- Developed a to-do list app using **ReactJS** which enabled users to efficiently add, complete, and delete tasks
- Leveraged **Firebase** for real-time data updates, facilitating instantaneous data storage and updates
- Integrated data validation and security measures for seamless, secure user interaction.

Portfolio Website, HTML, CSS, JavaScript

- Created a portfolio website with **interactive functionalities** such as a hamburger menu
- Guaranteed smooth **UI/UX** experience across different devices
- Deployed the website using **AWS Amplify** server and **Github Pages**

Shooting Game, Java

- Developed a **GUI game** using **OOP** which allows keyboard control of the shooting strength and direction
- Implemented a ranking system to evaluate player performance, using target hit accuracy as a metric
- Incorporated physics effects including explosions and smoke to enhance user experience and realism