Christina Zhang

c734zhan@uwaterloo.ca | (613) 698 – 4482 | https://github.com/Chrisytz | https://www.linkedin.com/in/christinaytzhang/

Summary of Qualifications

Languages
- Python, C, C++, Java, HTML, CSS, JavaScript, Racket

Technologies and Frameworks
- Git, Pandas, OpenCV, NumPy, YANG TensorFlow, Keras, OpenGL, Django,

Additional Skills
- **Outstanding teamwork skills** and **communication skills** gained from hackathons and professional workplace experiences
- **Creative skills** gained through digital art projects
- **Quick** and **eager to learn** new skills, languages, and technologies
- **Dedicated** and **determined**, always willing to take on a challenge

Relevant Projects

Blob Traffic
May 2022 - Present

A **pathfinding simulation** written in **Python and C++**, to explore intelligent pathfinding behavior in a real-world environment
- Used **OpenGl, Blender** and **C++** to create a **3D visualization** of the pathfinding simulation
- Designed and implemented a **reinforcement learning environment** to train **multiple agents** using **a q-table**, done use **Open Ai gym** and **NumPy**
- Initially used an **A* algorithm** as a proof of concept for single agents

HopiBot
Hawk Hacks
Jul 2021 - Aug 2021

Won **second place** with a chatbot designed to make the process of admitting patients more efficient
- Chatbot was created using **CSS, HTML, JS, Flask** and **SQL** and **Twilio** and **Google Maps API** was used to send text messages to patients with details based on a multitude of factors
- Methodically **tested** our chatbot and **communicated effectively** in a **high-pressure** situation

Sudoku Solver
Jul 2021 - Aug 2021

An interactive **sudoku GUI** that can check the user's moves and solve the grid
- Written in **Python** using a **backtracking algorithm**

Colour of Hue
Mar 2021 - Jul 2021

A game inspired by I Love Hue, written using **Python, pygame** and **multi-processing**
- Created splash art and experimented with color to successfully create an appealing **GUI**
- Learned and implemented a **database** to save and reload data using **sqlite4**

Professional Experience

Software Engineer
Cisco Systems
May 2022 - Aug 2022

Tasked with **automating configurations** of Cisco routers and **full-stack development** of Yangsuite
- Updated the **IPv6 Performance Measurement API**, designed and implemented **configuration automation** for Path Tracing and Path Assurance
- Updated **PM parsers** using **TextFSM** to parse router configuration commands
- Added multiple features to **Yangsuite-Ondatra** with the **Django** framework using **Python, Javascript, YANG,** and **Tabulator**

IT Developer
EXY Society
Sept 2020 – May 2022

Developed a website using **HTML, CSS, and JavaScript** to provide youth with 21st century skills
- Worked and communicated cross department to provide **IT solutions**

Lifeguard
Aug 2020 - Jun 2021

Held accountable for the safety of patrons, worked efficiently under **high pressure situations**
- **Effective communication and problem solving** in professional environments

2381Z Robotics
Aug 2020 - May 2021

Member of an international award-winning team VEX Robotics team
- Implemented iterations of designs and worked on **computer vision programs**

Education

University Of Waterloo
Sept 2021 - Present

Candidate for Bachelor of Science Honours in Computer Science/Digital Hardware
- 90 Cumulative GPA, expected graduation April 2026