Tom Zhang

639-525-8318 | t223zhan@uwaterloo.ca | linkedin.com/in/tom | github.com/tom

Education

University of Waterloo — Waterloo, ON
Bachelor of Mathematics in Computer Science (GPA: 3.9/4.0) — *Sep. 2024 – Apr. 2029*

Experience

Junior Front End Developer — Sep. 2024 – Dec. 2024
Krachi's Space Technologies — *Waterloo, ON*

- Developed the front-end of the company website (kspace-technologies.com) using **React** and **Tailwind CSS**, focusing on a clean and modern design
- Implemented key features such as the navigation bar and contact form, resulting in a 15% increase in user inquiries
- Optimized website for SEO, including meta tag optimization, resulting in a 100% increase in organic traffic
- Ensured cross-device compatibility and responsiveness, providing a seamless user experience across mobile, tablet, and desktop devices
- Integrated Emailjs to handle email submissions, enhancing website functionality
- Improved website load times by 20%

Python Developer — Apr. 2023 – June 2024
Centennial Collegiate — *Saskatoon, SK*

- Developed a **Python**-based application leveraging the Openpyxl library to automate the creation and formatting of class schedules into Excel documents for the school principal, significantly reducing manual effort and improving data organization (Git Repository)
- Streamlined the scheduling process, estimated to save the principal several hours per week, resulting in enhanced efficiency and reduced potential for scheduling errors
- Recognized for impactful contribution with a $150 honorarium, a letter of recommendation from the principal, and a school appreciation award

Projects

Personal Portfolio Website | *HTML/CSS, JavaScript, React, TailwindCSS* — Jan. 2025 – Feb. 2025

- Developed a visually appealing and responsive personal portfolio website, Tom's World, using React and Tailwind CSS to showcase my skills, projects, and experience
- Ensured cross-device compatibility and optimal user experience across mobile, tablet, and desktop devices by implementing a responsive design, including breakpoints and thorough testing
- Implemented key features such as an interactive, image-carousel-driven project showcase and a responsive design, significantly enhancing user engagement
- Optimized website performance, achieving a high Lighthouse score and a fast initial load time through techniques including code splitting, resulting in a smooth and responsive user experience

Google Minesweeper Solver | *Python, Git* — Apr. 2023 – June 2023

- Engineered a **Python**-based intelligent agent leveraging **OpenCV** and **PyAutoGUI** to autonomously solve Google's Minesweeper game (hard mode) in under 15 seconds, demonstrating advanced problem-solving and algorithmic design skills (Git Repository)
- Developed a multi-stage process involving real-time screen capture, image processing techniques to identify the game board state, and a sophisticated algorithm to deduce mine locations and automate precise click inputs
- Applied principles of **Computer Vision**, **Image Processing**, and algorithmic logic (including elements of search and constraint satisfaction) to create an efficient and effective solution
- Utilized **Git** for version control throughout the development process, ensuring code maintainability and collaborative potential

Technical Skills

Languages: HTML/CSS, JavaScript, TypeScript, Python, SQL
Frameworks: React, Angular, Bootstrap, Tailwind CSS, Node.js, Express, Next.js, Redux, MongoDB, Mocha
Developer Tools: Git, Linux, AWS