

GAVIN XUE

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TECHNICAL SKILLS

Languages: Python, C/C++, Java, JavaScript/TypeScript
Technologies: React.js, Node.js, Express.js, Next.js, MongoDB, Flask
Developer Tools: Git, Linux, Postman, Selenium, Heroku

EXPERIENCE

Information Technology Support Assistant

May 2024 – Present

University of Waterloo

Waterloo, ON

- Reduced the need for manual broken link checking by automating the process using Selenium Web Driver, resulting in **upwards of 10x** faster execution time
- Automated spam email deletion using Python and the Jira REST API, boosting team workflow and reducing the time required to clean the ticketing system by **70%**
- Spearheaded a project to revamp the UW Weather Station website, enhancing the UI/UX and SEO
- Maintained a high CSAT Score of **5** assisting customers with IT issues via the Jira service management system

Coding and Robotics Coach

Jun 2023 – Aug 2023

Code-it Hacks

Toronto, ON

- Built VR games using HatchXR and Google Cardboard, enhancing campers' creativity and engagement
- Programmed drones in Python using the DJITelloPy library using for seamless control and video streaming
- Led a space challenge inspired by FIRST LEGO League using LEGO Education SPIKE robotic kits

LEADERSHIP

Web Developer

May 2024 – Present

UW Mathematics Society

Waterloo, ON

- Transformed pages from the old WordPress site to a new site using an Express.js server, Pug templating, and Sass styling
- Implemented dynamic routes and **object-orientated** data handling for individual items of the store page
- Organized JSON data with schemas and TypeScript to ensure codebase consistency

Frontend Developer

Jan 2024 – Present

UW Google Developer Student Clubs

Waterloo, ON

- Designed a full-stack Next.js application to promote club events for **200+** members and potential sponsors
- Customized style themes with Tailwind CSS and shadcn/ui to align with Google's style guidelines

PROJECTS

Broken Link Checker | Python, Flask, BeautifulSoup4, Heroku

- Optimized a web-scraper using BeautifulSoup4 to iterate through and extract HTML link elements from generic WCMS 3 sites, which then analyzes their validity through HTTP status codes
- Architected a bidirectional connection using **websockets** for real-time client-side updates

Red Snap | React.js, NASA Open API

- Leveraged NASA Open API to fetch data from all Mars rovers spanning over **5000+** sols, providing users with the ability for customizable queries such as by date or rover
- Applied side effect features of React.js resulting in response speeds of less than **1 second**

Face Recognition | Python, TensorFlow, OpenCV

- Trained a face detection model using **1000+** images, achieving **90%** accuracy
- Integrated the model with OpenCV resulting in a video processing latency of **under 200ms**

EDUCATION

University of Waterloo

GPA: 89%

Candidate for the Bachelor in Computer Science

Sep 2023 – Apr 2028 (Expected)

- Awarded **1 of 10** René Descartes National Scholarships (**\$20,000**) from the Faculty of Mathematics for academic standing and distinguished mathematical accomplishment