

Catherine Zhou

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OBJECTIVE

- Highly flexible performer with a proven track record of thriving in a dynamic fast-paced environment.
- Motivated self-starter with a passion for problem-solving and constantly seeking opportunities for improvements.
- Exceptional communication and collaboration skills demonstrated through working with cross-functional teams.

SKILLS

- **Programming Languages:** JavaScript, TypeScript, SQL, JSON, Python, Java, C/C++, Git, HTML, CSS, Perl, Bash
- **Other Technical Skills:** React, Node, MySQL, NextJS, Figma, Azure, WordPress, REST API, GraphQL, MongoDB, GitHub, Linux, Agile, Scrum, Google Analytics
- **Soft Skills:** Problem-Solving, Effective Communication and Collaboration, Time Management, Multitasks Performer

WORK EXPERIENCE

Freelance Front End Developer - MG Aesthetic Center, West Covina, CA Mar 2024 - Present

- Design and develop a responsive bilingual eCommerce website using JavaScript, React, CSS and i8next to promote the company's services and products, resulting in a 200% increase in website performance.
- Transform and format organization data in JSON to meet the client's requirement for local storage; Implement accessibility standards WCAG 2.0 to maximize user experience.

Full Stack Developer (Volunteer) - LetsStopAIDS (Non-Profit Organization), Toronto, ON Jan 2024 - Present

- Assist in feature developments in the front and back end of the organization's website utilizing Azure, TypeScript, NextJS, GraphQL, HTML and CSS.
- Implement Web Share API to the website by TypeScript and Tailwind CSS to provide users with a 50% wider range of share options allowing the website to reach the target audience.
- Transform the website into a progressive web app using TypeScript and JSON to optimize SEO compatibility and provide more efficient access and maintenance.

Software Developer - IBM Canada Ltd. Markham, ON May 2021 - Aug 2022

- Created comprehensive functional verification testing in Perl, SQL, bash and C across multiple DB2 releases on multiple platforms. Maintained test cases' stability to ensure reliability and efficiency.
- Designed and delivered a scalable automation monitoring system for the domain test pipelines to enhance team productivity, contributing to a 6.25% increase in individual daily efficiency.
- Directed the modernization and migration of all domain-owned tests from IBM ClearCase to Git environments on the AIX platform, enhancing performance and workflow efficiency by 80%.
- Involved in the end-to-end SDLC of a new feature using Scrum and Agile working methodologies and collaborated closely with the internal regression infrastructure team to enhance the domain's CI/CD jobs' reliability and environmental stability.

PROJECT EXPERIENCE

Human Value Detection in Text - *Team Leader*, Design Project, University of Toronto May 2022 - Apr 2023

- Developed a web application in JavaScript, CSS and React to promote a machine-learning model at the university Design Fair. Incorporated Gradio interface for interactive stakeholder engagement, resulting in a 30% spike in traffic.
- Led a team of four to design and launch a machine learning model with a GPT2 transformer and CNN classification head reaching an accuracy of 93% and an F1-score of 0.93. Applied NLP augmentation and back translation methods in Python to expand the dataset by 30%, reaching over 30,000 entries.
- Presented the project at the Design Fair, translating technical concepts into easily understandable language; providing leadership by overseeing progress, defining user needs and communicating effectively.

Organization Website Upgrade - Supervisor, VEEP, University of Toronto

Oct 2021 - Apr 2022

- Directed a team of eight to design and develop a website for the organization resulting in an 83% increase in visits.
- Developed the web app framework using TypeScript, JavaScript, SQL, Node, React Bootstrap, React Router DOM, React Hooks and CSS to support future needs; designed the UI utilizing Figma; collaborated with the UI designers and conducted user research, incorporating the feedback to create more intuitive website structure.
- Defined project requirements and roadmap; developed a 4-week training for team members with little to no programming experience; delegated tasks to team members and maintained a healthy team environment using SCRUM and agile management, achieving a 30% improvement in progress tracking.

Cook Pad Website Development - Team Member, Programming on the Web, University of Toronto

Sep - Dec 2020

- Designed and implemented a MongoDB database for text storage and utilized Cloudinary for image storage, supporting 100% data storage and efficient data retrieval.
- Implemented 10 features on the website using JavaScript, React Bootstrap, material UI, RESTful API, React Router DOM and CSS; conducted detail-oriented functionality, usability, compatibility and responsive testing, identifying and reporting bugs and collaborated with two team members to address 100% of bugs.
- Spearheaded the project development and managed multiple concurrent deadlines; communicated with team members in a timely manner, resulting in a 30% increase in productivity.

EDUCATION**Bachelor of Applied Science, Computer Engineering**

Sep 2017 – Jun 2023

Minor in **Engineering Business**, Certificate in **Artificial Intelligence**

University of Toronto, Toronto, ON

LEADERSHIP EXPERIENCE**Volunteer Engineering Experience Program**, University of Toronto*President*

Oct 2021 - Apr 2023

- Directed and managed the organization of 35 members by implementing a club development plan and strategic cost-cutting measures, resulting in an 83% increase in member engagement and an 80% reduction in annual expenditure.
- Connected and nurtured relationships with 60% of past stakeholders by verbal communication, fostering continued collaboration and strong networks for future engagements; increased client retention rate by 66%.