Sara Thompson

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github.com/Li-Zhi-4 / Portfolio
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Education

University of Waterloo
Master of Engineering (MEng), Systems Design Engineering   *September 2024 – present*
Bachelor of Applied Sciences (BASc), Nanotechnology Engineering   *September 2019 – April 2024*

Professional Experience

Product Owner – UX Designer | Bespoke Metrics (Startup, Toronto)   *January 2023 – August 2023*
- Led Agile workflows (sprints, standups, backlog refinements, retrospectives) to develop high-fidelity UX/UI features using Jira, Figma, and Datadog.
- Demonstrated end-to-end product management skills by leading team of developers in product development cycle, implementing feature enabling workflow digitization for clients from conception to production.
- Implemented user acceptance testing (UAT) processes to ensure high-quality, error-free deliverables.
- Coordinated cross-functional teams including developers, designers, stakeholders, and senior product owners to align project goals and ensure quality features.

Technical Writer – Developer | OpenText   *September 2021 – April 2022*
- Maintained product documentation using OpenText XML authoring environment (Jira, Arbortext Editor, Notepad++, and MadCap Flare) to ensure compliance with style guides.
- Collated stakeholder information to redesign department information portal, implemented with HTML/CSS/JS.
- Collected stakeholder information to design high-fidelity wireframes in Figma for video data analytics.

Research Assistant – UX Research | University of Waterloo   *January 2021 – April 2021*
- Investigated user's susceptibility and perception of strategic UI/UX designs in shopping applications.
- Developed automated data-cleaning script to remove invalid responses, reducing manual cleanup by 90%.
- Processed and analyzed 1116 participants using statistical methods (t-test, ANOVA, correlation analysis).
- Authored comprehensive report integrating data analysis, research methodologies, and quantitative insights, demonstrating proficiency in technical, structured document writing.

Key Projects

Wiki App | HTML/CSS/TypeScript, Tailwind, React | github.com/Li-Zhi-4/gs-wiki   *April 2025 – June 2025*
- Developed wiki application using HTML/CSS/TypeScript with React and Tailwind to dynamically map JSON data with React Router (built first iteration of site from scratch using HTML/CSS/JavaScript, React).
- Designed data-driven index pages leveraging Hooks for pagination and filtering of items.
- Designed UX/UI layout in Figma before implementation and hosting on Netlify.

Productivity Dashboard | PostgreSQL, Express, React | github.com/Li-Zhi-4/panda   *May 2025 – June 2025*
- Developed application using React frontend and Node.js Express backend for productivity dashboard.
- Built CRUD API endpoints to enable data management for storing user notes.

Vertex Graph Cover | Python/C++ | github.com/Li-Zhi-4/Vertex-Cover   *March 2025*
- Built a minimal vertex cover solver with CNF-SAT libraries (MiniSat, Kissat) in C++ and Python.
- Implemented CNF clauses to satisfy problem and piped solutions into CNF-SAT solvers to acquire satisfiability.
- Refactored program output to enumerate cover vertices and exported results to file.

Extracurriculars

UW Varsity Rowing Team   *September 2023 – present*
Animusic Band   *May 2022 – August 2022, January 2023 – April 2025*

Skills

Languages: HTML, CSS, JavaScript, TypeScript, Python, C++, R, MATLAB, SQL, PostgreSQL
Technologies: React, Tailwind, Figma, Jira, MadCap Flare, Arbortext Editor, VS Code, Microsoft Excel, GitHub