

Tai Shishiba

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TECHNICAL SKILLS

Languages: Python, JavaScript/Typescript, Java, C/C++, HTML/CSS, SQL, Assembly, Nix

Frameworks: React, Express, NextJS, Convex, Neon

Developer Tools: Git, GitHub, VS Code, Postman, Emacs

Libraries: TailwindCSS, NumPy, Matplotlib, Mongoose, Shadcn, BetterAuth

EXPERIENCE

Undergraduate Research Assistant

May 2025 – Aug. 2025

Mount Royal University

Calgary, AB

- Built Python visualization pipelines using NumPy and Matplotlib to analyze simulation outputs for malware propagation research in wireless sensor networks
- Prototyped simulations using emerging research libraries to model malware spread patterns, enabling the team to evaluate new modeling approaches
- Authored LaTeX technical documentation of experimental methodology and results for research publication

PROJECTS

Vendor Report Webapp | *NextJS, Typescript, Bun, PostgreSQL, Square API, Git*

Jan. 2026 – Present

- Independently designing and building a full-stack web app for a pre-launch retail business, giving **20+ consignment vendors** self-serve access to sales data previously only visible to store administrators
- Integrated the Square API to ingest live transaction data, parsing and attributing **approximately 2,000 orders** into **3,500 vendor-specific entries** for per-vendor reporting
- Designed a PostgreSQL schema to model the store's unique consignment workflow, enabling accurate vendor-level attribution of shared-storefront sales
- Implemented role-based authentication distinguishing vendor and admin accounts, ensuring vendors can only access their own private sales data
- Built interactive dashboards surfacing sales history and orders-over-time charts, replacing a month-end manual reporting process with real-time visibility
- Conducted user interviews with real vendors to validate UI decisions and iterate on pain points before launch

Stoa | *React, Typescript, Git, Convex*

Mar. 2026 – Present

- Shipped features incrementally alongside a team using Git branching workflows to keep parallel work conflict-free
- Translated feature requirements into tracked tasks via Agile sprints, managing scope across the team
- Prototyped UI flows and iterated with teammates through design reviews to refine the end-user experience
- Strengthened code quality through regular code reviews and pair programming sessions
- Diagnosed and resolved cross-platform compatibility bugs spanning Windows, macOS, and Linux

Urban Pulse | *NextJS, Typescript, Prisma, NeonDB, Ollama, AWS S3 (Hack the Change 2025)*

Oct. 2025

- Built the backend in a 24-hour hackathon for a full-stack web app letting residents report and view urban infrastructure issues
- Designed the Postgres schema with Prisma and NeonDB, and implemented authentication and session management with Neon Auth
- Integrated AWS S3 for user-uploaded issue photos using presigned URLs for direct client-to-bucket uploads
- Wired up API calls to a remote Ollama LLM hosted on a teammate's server, enabling AI-powered features without external API dependencies

EDUCATION

Mount Royal University

Calgary, AB

Bachelor of Science in Computer Science

Sept. 2023 – Current

- Dean's Honour Roll (5 consecutive semesters)
- President's Honour Roll (2 consecutive years)
- Cumulative GPA: **3.89/4.00**
- Relevant Courses: Algorithms and Complexity, System Design, Introduction to Databases, Foundations: Software Engineering, Web Development for Computer Science, Computing Architecture and Machinery