Stanley Wang

stanley.wang.cs@gmail.com | GitHub | LinkedIn | Portfolio

Skills

Languages: Python, TypeScript, Java, Go, JavaScript, MySQL, OCaml, C++, C, Lua, Bash
Technologies: Git, Unix, React, Flask, REST APIs, WebSocket, Redis, pandas, scikit-learn
Cloud & DevOps: AWS, Docker, CI/CD, Load Balancing, NGINX

Experience

Software Engineering Intern, **Autodesk**, Montreal, QC — May 2025 – Aug 2025

- Contributing to **Flow Production Tracking** and **Creative Review's** public beta release
- Enhancing **UI/UX** and **performance** of features used by major studios (**Disney**, **Sony**, **MAPPA**, etc.)
- Improving deployment reliability through **test-driven development** and **CI/CD pipeline** creation
- Building **visual debugging tool** with **user event sequence tracing**

Software Engineering Intern, **BETA Technologies**, Montreal, QC — Jan 2025 – Apr 2025

Read Case Study

- Developed structural analysis library in **Python**, reducing **3-day** manual process to **10 seconds**
- Engineered a batch-processor to efficiently modify **multi-gigabyte** finite element aircraft models
- Implemented **undo system** for **shared-state** aircraft, enabling **complex operation chaining** without re-parsing
- Accelerated future development of structural analysis tools by **95%**

Lead Researcher, **McGill AI Ethics Lab**, Montreal, QC — May 2024 – Dec 2024

- Researched and presented novel misinformation solutions at **McGill's Undergraduate Research Symposium**
- Built **cross-language API** library in **Go** with **C bindings** for **Python** integration, improving team velocity by **40%**
- Developed **NLP-powered** video analyzer using **sentiment analysis** and **engagement pattern** detection

Projects

Trading Fours, Full Stack & Machine Learning — Demo Video | GitHub

- Developed a music recommendation engine using **XGBoost** and **gradient boosting** for genre prediction
- Deployed on **AWS EC2** with **Docker** containers, **CI/CD pipeline**, and **NGINX** reverse proxy
- Optimized data-transfer speeds by **30%** through **SQL pooling** and **Redis caching**
- Reduced server memory usage by **50%** by sharing **machine-learning model state** between workers

McGill Formula Electric Battery Monitor, Embedded Systems — GitHub

- Designed monitoring system integrating **CAN bus** data through **MCP2515** to **Raspberry Pi** via **SPI protocol**
- Built **real-time** dashboard in **Python** for battery monitoring with **heat safety** alerts

Terminal Chatroom, Networking & Functional Programming — GitHub

- Built **OCaml** chat server with **concurrent** client handling using **TCP sockets** and **async I/O**
- Implemented custom **application-layer protocol** with **packet framing** for reliable messaging

Datamines, Game Development — Play Game | GitHub

- Created atmospheric **2D platformer** in **Unity** for McGill CodeJam
- Wrote an **adaptive soundtrack** system using **linear interpolation** for dynamic music transitions

Obsidian Notetaking Plugin, Open-Source — GitHub

- Developed **TypeScript** plugin for Obsidian with **1,000+** downloads, enhancing developer workflows

Education

McGill University, Bachelor of Science, Computer Science — Sep 2022 – Dec 2027