Benson (Yanbo) Xiao

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SKILLS

- **Languages**: C/C++, Python, JavaScript/TypeScript, HTML/CSS, Bash

- **Frameworks & Libraries**: Next.js, Tailwind CSS, Node.js, Flask, Chart.js, Discord.js, Octokit.js

- **Tools & Platforms**: Git, Docker, Docker Compose, Drone CI, Linux, X11, Nginx, Caddy

EXPERIENCE

- **Customer Support Agent - Windscribe**   Sep – Dec 2025
  Windscribe Limited   *Remote*
  - **Network Troubleshooting**: Applied networking fundamentals (**networking protocols**, **DNS**) to diagnose and resolve VPN connectivity issues; configured virtual machines to reproduce and test client-side failures.
  - **Automation Tooling**: Designed and implemented a **JavaScript browser extension** to automate high-frequency support operations, reducing average task completion time by **80%**.

PROJECTS

- **WhoWillPay Expense Tracker** GitHub   Feb – Apr 2025
  - **Algorithm**: Implemented weighted random payer selection ($O(n)$) with **Python**; reduced payer-decision clicks from 10 to **1**, turning 3-min discussions into a 2-second button press.
  - **Visualization**: Integrated a **Chart.js**-based dashboard (pie chart) with responsive UI; maintained **80 ms** average API latency.
  - **Backend**: Built RESTful APIs using **Flask** backed by a **SQLite** schema to manage user expenses with consistent data integrity.

- **GIToday Discord Bot** GitHub   Sep – Dec 2025
  - **Bot Development**: Developed a Discord bot in **TypeScript** and **Node.js** using **Discord.js** to automatically deliver daily GitHub activity reports to organization channels.
  - **Data Aggregation**: Collected and processed commit activity from the **GitHub** API using **Octokit.js** to rank contributors within a GitHub organization over a rolling 24-hour window.
  - **API Orchestration**: Orchestrated multiple **third-party APIs** (GitHub, Discord, OpenAI) to generate and publish structured, readable summaries without manual intervention.

- **CI/CD Automation with Drone & Docker**   Sep – Oct 2025
  - **CI Workflow**: Configured and used **Drone** CI pipelines integrated with **Git** repositories to trigger automated builds on push and merge events.
  - **Containerization**: Used **Docker** and **Docker Compose** to build and run containerized services, ensuring consistent environments across development and deployment.
  - **Infrastructure Management**: Managed containerized services and deployment configurations through **1Panel**, including service control and environment management.

- **C++ Chess** GitHub   Jul – Aug 2025
  - **Systems & Graphics**: Built a chess game in **C++20** using low-level **X11** graphics, implementing a custom rendering loop without external game engines.
  - **Architecture & Events**: Developed modular game logic and an event-driven input pipeline, separating game state, move execution, and rendering for maintainable gameplay flow.

- **GreenGroup Web Page** GitHub Demo   Dec 2025
  - **Frontend UI**: Built a style-focused web page using **Next.js** with its file-based routing system, implementing responsive layouts and page navigation.
  - **Styling**: Designed and refined the UI using **Tailwind CSS**, emphasizing visual consistency, spacing, and reusable utility-based styles.

EDUCATION

- **University of Waterloo**   Waterloo, ON
  Honours Bachelor of Computer Science   Sep 2024 – Apr 2029 (expected)