

Willem Van Zwol

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U.S. Citizen in Spokane, WA

Education

Whitworth University

Expected May 2027

B.S. in Computer Science with a Minor In Mathematics

Experience

Software Engineering with Family Promise

Spring 2026

- In a team, using Ren'Py built a "Poverty Simulator" web game for a housing-focused nonprofit.
- Implemented from scratch based on client requirements, iteration, and feedback.

Technology Consultant at Rockwood

Spring 2026

- Provided hands-on technical support on everyday software issues to residents in a 55+ community.
- Delivered presentations on topics including AI's implications, digital accessibility and more.

Resource Center: Offline-first Web App (Rust)

Spring 2025

- Built a website for finding resources (food, shelter, clothes, etc.) used by multiple non-profits.
- Implemented SQLite query logic and dynamically loaded HTML in Rust, compiling the application to WebAssembly (WASM) for near-instant serverless search.
- Organized real-world data into a schema supporting structured search and editing.

Non-technical work

- Amazon Associate (Summer 2025)
- Lifeguard at YMCA (Summer 2023)

Projects

PeerPlace: Decentralized Pixel Canvas Web Application (Golang)

Jan 2026 - Present

- Solo built a full-stack web application inspired by r/Place, backend in Go with SQLite.
- Implemented front-end in HTML/CSS and JavaScript.
- Tested with over 30 users connected to one server with no issues.

RelayNetCore: PQ Peer-to-Peer LAN Messaging System (C++)

Fall 2025

- Built a peer-to-peer LAN messaging system in C++ using TCP networking.
- Implemented end-to-end post-quantum cryptography with custom handshake protocols.
- Designed configuration-driven system behavior using TOML user configuration files.
- Ensured feature parity between CLI interface and Qt GUI.
- Contributed to cross-platform builds across Linux, macOS, and Windows.

Skills

General: Communication, Collaboration, Problem Decomposition, and Quick to Learn

Languages: Rust, Go, C++, Bash, HTML/CSS/JavaScript

Technologies: SQLite, SQL, WebAssembly, Git, Nix, Docker

Concepts: Distributed systems, networking, encryption, full-stack web development