

Peter Ye

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🐙 yaxollum

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Skills

- **Languages:** C++, Python, Rust, Java, C#, HTML, CSS, JavaScript, TypeScript
- **Technologies:** Git, Linux, Bash, Docker, Nginx

Experience

Xonsh: a Python-based command line shell (🐙 [xonsh/xonsh](#))

- Identified and fixed complex I/O and multiprocessing issues by tracing system calls and inspecting the shell's runtime state using a debugger
- Updated the shell's command parser to add new syntax features and fix parsing bugs
- Developed unit tests using the Pytest framework
- Contributed 30+ pull requests, documenting all changes in the project's release notes

Technologies used: Python, Pytest, strace, PDB

Projects

Diagonator: a time management system (🐙 [yaxollum/diagonator](#))

- Developed a cross-platform time management system that reminds computer users to take breaks by drawing lines across their screen
- Built a Pomodoro timer and a checklist that guides a user through their daily routine
- Created a status bar widget, a collection of keyboard shortcuts, and a command-line interface, which all connect to the time management system using WebSockets

Technologies used: Rust, Socket.IO, tokio, axum; C, X11; C#, WPF

CHIPedda: a CHIP-8 emulator, disassembler, and assembler (🐙 [yaxollum/CHIPedda](#))

- Built an emulator that can run programs written for the CHIP-8 platform
- Implemented a disassembler and an assembler that convert programs from binary into assembly language, and vice versa

Technologies used: C++, CMake

Scrape: a command line Scratch interpreter (🐙 [scraterpreter/scrape](#))

- Developed a Scratch interpreter that runs in the command line
- Leveraged object-oriented design patterns to implement various language features and constructed an abstract syntax tree by decoding Scratch's .sb3 file format

Technologies used: C++, CMake, JSON

Education

University of Waterloo

Bachelor of Computer Science

3.92 GPA / 94.8% cumulative average

Sep 2023 - present