

Peter Ye

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🌀 yaxollum

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Skills

- **Languages:** C++, Python, SQL, HTML/JS/CSS, Rust, Java, C#
- **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 data visualization tool to help users analyze their past behaviour
- Implemented a JSON API for scripts that connect to the time management system

Technologies used: Rust, Python, SQLite, Socket.IO

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
- Decoded Scratch's `.sb3` file format to construct an abstract syntax tree

Technologies used: C++, CMake

Education

University of Waterloo

Bachelor of Computer Science

3.92 GPA / 94.8% cumulative average

Sep 2023 - present