Will Chartrand

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github.com/will-chartrand,   willc.xyz

Availability
Permanent Full Time beginning April 25, 2025

Education
Bachelor of Computer Science Honours, Internet Security   **Sept 2021 – Present**

Carleton University, Ottawa, ON

- Fourth year standing, 10.94/12 (A), 11.2/12 Major GPA
- Faculty Scholarship
- Expected Graduation Date: April 2025

Work Experience
Software Developement Intern - Mobile   **May 2023 – Sept 2023**

WorldBuddy Travel Inc., Ottawa, ON

Remote Position

- Employed various UI libraries to create a user-achievements page, making use of in-game currency to gamify the application. Worked with various data structures including several maps to store user progress, and eventually to update the Firebase (database) tables.
- Facilitated asynchronous communication between client and server/database architecture through the use of minimal function callbacks, keeping scalability in mind.
- Utilized Git/Github to manage various versions of a code-base to develop solutions asynchronously alongside other team members.
- Created a GDPR page to comply with European laws and regulations, allowing users to consent to necessary permissions/requirements such as location data and data collection for personalized ads.

Cashier/Donations Associate   **May 2024 – Sept 2024**

The Salvation Army, Ottawa, Ontario

Outdoor Power Equipment Associate   **May 2022 – Sept 2022**

Lowes Canada, Ottawa, Ontario

Deli and HMR (Home Meal Replacement) Clerk   **June 2020 – Aug 2021**

Loblaws Grocery Store, Ottawa ON

RELEVANT SKILLS, EXPERIENCES AND ACCOMPLISHMENTS

Technical and Coding Skills
- Implemented several features and pages in the WorldBuddy Android/IOS application utilizing Flutter/Dart and Firebase, effectively improving user experience and app functionality.
- Use Artix linux (fork of Arch linux) as primary desktop operating system.
- Familiarity with init systems such as Systemd, OpenRC, and package management systems such as pacman (Arch, Artix), apt (Ubuntu, Debian), pkg (Termux on LineageOS), Portage (Gentoo), chocolatey (Windows).
- Proficiency with the command line, and command line programs (Neovim, Git/Lazygit, several custom-made command line utilities).
- Developed personal projects and school assignments using C, C++, Java, HTML/CSS/JavaScript, and Python, Haskell, Prolog, Bash, resulting in proficiency in said languages.
- Demonstrated web development skills by creating a portfolio website to display various interests and strengths referenced in resume.
- Programmed a 3D maze game in C++ using ray-casting and multi-threaded code execution, resulting in a grade of A+ and acknowledgment from the instructor.

Communication Skills
- Developed software alongside a team of programmers and managers, discussing solutions as a means to delegate tasks and implement features.
- Collaborated with summer camp instructors to ensure a safe and productive environment for children to learn gymnastics.
- Communicated with hundreds of Lowes customers in a fast-paced environment to determine which products would best fit their needs in a polite and cooperative manner, which resulted in the customers being content with their purchases and satisfied with the service provided.
- Documented computer code to effectively communicate the purpose of various functions as well as their parameters.

Interests
- Arch Linux and open source software
- Reading, Writing
- Music, Playing Guitar (willc.xyz/tech.html#music)
- Physical Fitness
- Optimisation of functional environments

APPLIED PROJECTS

Personal Project - YT2RSS   Feb 2025

- Created bash script to automatically fetch RSS (Really Simple Syndication) feed URL from any given Youtube channel URL, incorporating shell commands such as curl and sed.

- Created YT2RSS (Youtube to RSS) website as a frontend to interact with bash script using NodeJS to facilitate ease of use.

- Hardened VPS (Virtual Private Server) running Debian Linux using UFW (Uncomplicated Firewall), a frontend for firewall rule manager software iptables to ensure safe and secure operation.

- Configured NodeJS server to be served on specific requested directories of an Nginx web server via reverse proxy to create clear logical separation between personal site and YT2RSS site without the need for multiple domains.

- Created GitHub repository for remote website development and configured Tmux (terminal multiplexer) and personal Neovim configuration on VPS for quick adjustments.

- Hosted on https://www.willc.xyz/yt2rss

- https://github.com/Will-chartrand/yt2rss

Personal Project   **Sept 2021 – Oct 2021**

- Researched the Twitch TV API (Application Programming Interface) to allow a livestream chat to control a servo motor from anywhere in the world, instantaneously.

- Integrated hardware components to be controlled by custom-written software using a Raspberry Pi micro computer through accessing GPIO pins on the motherboard.

- Developed an understanding of Python3 syntax as well as web sockets to access data from Twitch.tv website.

Personal Website   **Jan 2021 – March 2021**

- Acquired knowledge of HTML, CSS and JavaScript through reading documentation in order to create a personal website from scratch.

- Incorporated moving elements, animations, and User Interface design principles using Jquery resulting in a smooth and streamlined user experience.