

jiuzhouhao

Personal Info

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Github
https://github.com/PacificViking

Education

Year 2, pursuing Bachelor's Degree: Computer Engineering, University of Toronto (St George).
Graduating 2027.

Skills

Python

Python Libraries

Rust

C++

HTML/CSS

Javascript

SQL

Git

Bash

NodeJS

Linux/Unix

Networking

Server Administration

Data Structures/Algorithms

Nix/NixOS

Make

Interests

Programming

Open Source

Philosophy

Economics

Technology

Infosec

Software Design

Participation

Certificate Cutoff: Canadian Computing Competition, Senior

Certificate Cutoff: Waterloo CEMC Euclid Competition

Advent of Code 2021-2024

Hack the Valley 8

Projects

A personal censorship circumvention proxy

Key Achievements

Researched academic papers on firewall mechanisms and alternate circumvention proxies to inspire

Implemented and modified implementation of network protocols to hide network traffic

Optimized proxy throughput by interfacing with low level systems and multi-level caching

Administered remote AWS server maintaining security against randomized attacks

Results

Relatively fast (1.6MB/s), stable network traffic from China to firewalled domains/addresses compared to other proxies (which require avid disconnection to avoid suspicion flagging)

Consistently used over a year without connection loss

Multi-peer airdrop-like file transfer

Key Achievements

Used base64 stdio to interface my language of choice (Python) with the Multipeer-connectivity API (swift)

Researched badly-documented and niche multipeer API

Maintained application-like user experience on a web-based app despite Apple's trust constraints using hidden-window workarounds

Synchronized state between asynchronously joining and leaving peers using nonblocking file IO, abstracted communication protocols, and API command line interfaces

Results

Was not widely adopted, but was seldom used in my classes

Other Hobby Projects

A fairy chess engine

A few digital games with python/pygame

Automatic renamer and pdf-compiler for documents taken with photo booth on MacOS during e-learning

Imageboard crawler

Decision tree based wordle solver

Data denoising preprocessor and trend finder (for noisy sinusoidal data with exponentially decaying amplitude)

Using/configuring Linux (NixOS) as a daily driver

SMS receiver and web server for remote SIM card

HTTP chat server with file uploading and chatrooms

Code for this resume template

Contributed To

Adding, updating NixOS packages

Hyprrprop: xprop for Hyprrland

Budgeting app for Hackathon

GuessTheLocation: location guessing game

Work History

2020-11 - 2021-03;

Head of Sounds and Lights

We Will Rock You (Musical) / FAME (Musical)

2021-11 - 2022-03

Key Qualifications and Responsibilities

Learning stage light positioning and control using manual

Organizing microphone distribution to actors

Working with music and stage director to understand needs

Key Achievements

Modified stage lights at calculated angles for full, omnidirectional lighting for the musical

Multiple creative ideas, including using TTS for a robotic announcer, making dark blue scenes more visible using specks of bright light

Found and used undiscovered features in the control panel, including fixture groups, automatic shapes, and keyframing

2019-11 - 2023-03

Writer/Web Developer/Server Management

Unofficial School Blog

Key Qualifications and Responsibilities

Developing and maintaining an unofficial online blog for my high school

Writing entertaining content for the blog. This involved programming skills for interactively entertaining webpages, and image editing skills for content creation

Key Achievements

Blog had 200 views per week at its peak during COVID periods

2024-06 - 2024-09

Software Developer

A5 Project: Developing a Python Interpreter in Rust

Key Qualifications and Responsibilities

Communicated effectively with already-established project group to find out areas of potential contribution

Researched Python interpreter control flow using knowledge in the language, and finding correlations with code in Rust to understand available functions

Wrote several interal object representation files and added to functionality of several others

Wrote tests for my contributions as well as test cases for milestone

Key Achievements

Several previously unrunnable programs are able to run

This resume was programmed using HTML and CSS. It was inspired by the template at <https://zety.com/blog/college-freshman-resume-example>. Access the source code on my Github page.