Resume of Sean Shi

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A self motivated curious learner, focused, persistent, hardworking, detail oriented, preference for challenging tasks, problem solving. Particularly interested in Linux and cryptography. Personal Site: `https://sesh9096.github.io`

Education

University of Colorado Boulder, (2021-2025)

- **BS Computer Science** *Summa Cum Laude* GPA: 3.97
  - Network Systems (CSCI4273)
  - Linux/Unix Systems Administration (CSCI4113)
  - Software Development Tools and Methodologies (CSCI3308)
  - Object Oriented Analysis and Design (CSCI4448)
- **BA Mathematics(Statistics Track)** *With Distinction* GPA: 3.97
  - Statistical Methods and Applications (STAT4000)
  - Introduction to Cryptography and Coding Theory (MATH4440)

Work Experience

- Student HPC Systems Admin (CU Boulder Research Computing) *August 2024 to May 2025*
  - Administering and troubleshooting/fixing nodes in a HPC cluster
  - Working with vendors to repair nodes
  - Automating syncing of configurations across nodes using ansible
- Senior Lifeguard (Apex Park & Rec. District 13150 W 72nd Ave, Arvada, CO) *June 2021-August 2024*
  - Managing/leading lifeguards on a shift, enforcing accountability for tasks
  - Testing and maintaining pool chemistry and ensuring pool safety
  - Lifeguard of the Month in November 2021

Projects and Experience

- TechLibrary (Webserver, project for software development class)
  - Employing NodeJS to create a web server to facilitate communication with our postgres database and allow users to search for items, add them to the cart, and check them out.
  - Facilitating cooperation through requesting feedback on code, delegating tasks, and organizing meetings through groupme resulting in our team of 6 people finishing the project on time.
- Definote (Android App, for class Object Oriented Design and Analysis)
  - Demonstrated effective use of OOP principles including design patterns, TDD, BDD, encapsulation.
  - Tools/Frameworks included Kotlin, Room(ORM), Jetpack Compose(UI Framework), and Material Design
- Analysis of Walkability in the United States (project for STAT4000)
  - Analyzed various factors influencing walkability in the United States using R including ggplot, tidyverse, and lm to discover trends between various traits of a location.
  - Composed a report using LaTeXto present trends between factors affecting in a concise manner.
- Python to x86 assembly compiler (for simply python programs)
  - implementing lexing, parsing, intermediate representation, register allocation, etc. to make executables.
  - support for functions(at compile time), lists, strings, floats, dicts, etc.
- Experimental wayland shell(Personal project):
  - creating a desktop shell(notifications, status bar, etc) utilizing wayland protocols, libdbus, cairo, etc.

Skills/Interests

- Skills: Git, C/C++, Python(numpy, opencv, ...), R, Java, Linux(system administration), Android(Kotlin, Jetpack, SQLite, etc), Bash, MySQL, MongoDB, Docker, Emacs/Elisp, Zig, Lua, C#
- Hobbies: Origami, Chess, Reading, Minecraft, Math, Linux, Hiking
- Member of the CU Taekwando club and Tau Beta Pi(the Engineering Honors Society)