Shaun Loo

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Education

University of Minnesota - Twin Cities   Minneapolis, MN
 B.Sc Computer Science, GPA 3.87   Fall 2023
Relevant Coursework: Machine Architecture (C, x86_64 Assembly), Adv. Programming Principles (OCaml), Operating
Systems (C, Linux Syscalls), Computer Architecture (MIPS Assembly, Vivado)
 Awards and Honors: Dean's List (Fall 2021, Spring 2022)

Relevant Experience

ACM University of Minnesota Student Chapter   Minneapolis, MN
Systems Administrator   May 2022 - Present
- Provisioned over 40 charter members with virtual machines for server hosting and general computing studies by administering hypervisors and other hardware owned by the chapter.
- Coordinated with University IT staff to enforce university internet access guidelines, administering more than 60 public IPv4 addresses under UMN Class B allocation.
- Demystified the Linux terminal and Git to over 70 students by teaching UNIX Classes.

University of Minnesota - Twin Cities   Minneapolis, MN
Undergraduate Teaching Assistant   September 2022 - Present
- Supervised the smooth operation of programming laboratory sections of over 30 students.
- Stimulated student interest in data structures and algorithms by providing one-on-one or group guidance to over 15 students.
- Expedited grading throughput in a fast-paced computer science class of over 200 students by grading 10-15% of all submitted assignments every week.

Technical Skills

- **Programming:** C, C++, Java, Python, OCaml
- **Operating Systems:** Linux (Debian, Ubuntu, Arch), macOS, Windows 10/11
- **Tools:** Git, Docker, FFMPEG, Bash, Hyper-V, VMWare Workstation, QEMU, Xilinx Vivado, MATLAB

Projects

- **Self Hosting**: Maintained useful services including NGINX, Gitea, and Plex. Explored networking principles and studied ideas in CI/CD including Jenkins and Drone.
- **Interpreter**: Implemented an interpreter of a small language based on denotational semantics in OCaml. Researched concepts in Programming Languages including type checking and exceptions.
- **Higgsbot**: Discord Hack Week 2019 Project, explored Python libraries and Discord APIs. Provided users with a minimal C/C++ environment over Discord.

Leadership and Activities

Free Geek Twin Cities   Minneapolis, MN
Volunteer   December 2021 - Present
- Provided crucial access to computers for low-income people by refurbishing and assembling over 35 computers.
- Increased computer refurbishment throughput by up to 4 computers per day by optimizing refurbishment routines.
- Assisted in onboarding volunteers by coaching new volunteers on refurbishment procedures.

ACM University of Minnesota Student Chapter   Minneapolis, MN
Vice President   January 2022 - May 2022
Membership Officer   October 2021 - January 2022
- Organized events with significant outreach, including Minnehack 2022, the largest hackathon in Minnesota.
- Oversaw the smooth operation of chapter activities by maintaining the cleanliness and accessibility of the chapter club room.
- Coordinated with other student clubs on campus on collaborative, high throughput events of over 100 students.