Shaun Loo

zackerthescar | zackerthescar.com | loo00013@umn.edu | +1 (651) 239-3688

EXPERIENCE

University of Minnesota Twin Cities Minneapolis, MN
Undergraduate Teaching Assistant Sep 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 30 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.

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.

SKILLS

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

PROJECTS

CompQual:	Utility to assess the output quality of different codecs at different bitrates. Command-line application in Python, utilizing FFMpeg and Netflix's VMAF library.
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 in OCaml. Researched concepts in Programming Languages including type checking and exceptions.

EDUCATION

University of Minnesota Twin Cities Minneapolis, MN
B.Sc Computer Science, GPA 3.87 Expected Graduation: Spring 2024
- Relevant Coursework: Machine Architecture (C, x86_64 Assembly), Adv. Programming Principles (OCaml), Operating Systems (C, Linux Syscalls), Computer Architecture (MIPS Assembly, Verilog, Vivado)
- Awards and Honors: Dean's List (Fall 2021, Spring 2022)

LEADERSHIP AND ACTIVITIES

Free Geek Twin Cities Minneapolis, MN
Volunteer Dec 2021 - Present
- Provided crucial access to computers for low-income people by refurbishing and assembling over 40 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.