

Logan Cadman

Systems Administrator, Researcher & Student
Fort Collins, CO · logancadman.com · LinkedIn

Summary

From trade school automotive technician to graduate researcher at CSU, my career path has been driven by hands-on problem solving and leadership. Initially, I developed key leadership abilities as an Orientation Team Leader, then honed my technical skills as a Systems Administrator in the Computer Science department. This is where I discovered my fascination with Linux, networking, and DevOps. My internship at VMware reinforced the importance of infrastructure in supporting modern technology. Now, as a graduate student and researcher under Dr. Craig Partridge, I combine systems administration, C programming, and automation to tackle complex networking challenges. Ultimately, I aim to leverage technology to help people and organizations thrive.

Education

M.S. Computer Science at Colorado State University, Fort Collins, CO Expected 2025
Graduate Research Assistant & Graduate Systems Administrator; Adviser: Dr. Craig Partridge
B.S. Computer Science at Colorado State University May 2023
Officer, Computer Information Systems Club; Undergraduate Systems Administrator

Publications & Projects

Looking for Errors TCP Misses IEEE NOMS 2025 (Accepted); investigates network transmission errors.
Analyzing the Communication Patterns of Different Teammate Types in a Software Engineering Course Project FSE2025 - SEET (Accepted); Analyzes student communication
HIPFT Project: Automated log collection and custom kernel modifications to study network error rates.
OpenLDAP Migration: Led migration from NIS to LDAP with custom C programs.
Additional Projects/Papers: Two in progress, and many more from courses and personal

Experience

Research Assistant at Colorado State University Dec 2023 – Present

- Investigate network transmission errors under the HIPFT project by setting up services to collect, analyze, and troubleshoot thousands of network logs
- Developed custom Linux kernel modifications (net-filter) to simulate network conditions and expose TCP error detection gaps.
- Co-authored *Looking for Errors TCP Misses* (IEEE NOMS, 2025). Ongoing research includes honeypot dwell time, checksum errors, and network performance.

Systems Administrator at Colorado State University Oct 2020 – Present

- Managed a robust Linux infrastructure (600+ systems), performing routine updates, network configuration, cloning, system maintenance, and system configuration.
- Led the migration from NIS to OpenLDAP and created custom C programs for their use case, enhancing secure access and user management.
- Implemented automation with Shell, Python, and C/C++ to streamline maintenance tasks and reduce system downtime.
- Provided day-to-day technical support for students by diagnosing and resolving programming environment issues (e.g., Python dependency management, bashrc configurations), ensuring consistent course packages and utilized Linux modules.

Technical Support Engineer Intern at VMware Jun 2022 – Aug 2022

- Collaborated with the networking team to troubleshoot VMware vCenter Server issues, focusing on network performance and system connectivity.
- Participated in advanced training and applied analytical skills to resolve enterprise-level network challenges.

Orientation Team Leader at Colorado State University Jan 2020 – Aug 2021

- Supervised 26 leaders and coordinated orientation for 5,000+ new students.
- Led recruitment, training, and execution of both virtual and in-person events during COVID-19.

Skills

C, C++, Python, Java, JavaScript, SQL, HTML, Shell (Bash & ZSH), TCP/IP, network troubleshooting, network performance analysis, Data Center Operations, VMware, Linux Administration, Linux Kernel Programming, OpenLDAP, Routine Linux Updates, Tape backups, Git, Agile, Scrum, Ansible, DevOps practices, Wireshark, Tcpdump