Logan Cadman

Computer Scientist, Systems Administrator, Researcher & Student
Currently located in Fort Collins, CO · logancadman.com · LinkedIn

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, Fort Collins, CO   May 2023

Officer, Computer Information Systems Club; Undergraduate Systems Administrator

Publications & Projects

Looking for Errors TCP Misses — IEEE NOMS 2025 (Accepted); Co-developed a framework to detect TCP checksum-missed errors across 26 PB of data, revealing network and filesystem issues.

Communication Patterns in Software Engineering Teams — FSE2025 - SEET (Accepted); Used network analysis to study how teammate roles (e.g., Good Teammates, Couch Potatoes) affect communication in course projects.

Adaptive Honeypot Dwell Time with Contextual Bandits — Ongoing Research; Deploying a live system that uses contextual bandits and reinforcement learning to adapt honeypot dwell time in real time, optimizing attacker engagement using TCP SYN data.

OpenLDAP Migration: Migrated authentication to OpenLDAP, modularized it within MOAA (account management system), and enabled a self-service password reset page via the department website.

Other Work: Two papers in progress; additional projects from coursework and personal exploration.

Experience

Research Assistant at Colorado State University   Dec 2023 – Present

- Investigate network transmission errors under the HIPFT project.
- Built a logging system to collect, summarize, and back up logs from hundreds of clients and servers. Automated client provisioning with Ansible and Python; debugged C code and maintained infrastructure.
- Simulated degraded network and hardware scenarios via kernel hooks and log injection to study system behavior under stress.

Systems Administrator at Colorado State University   Oct 2020 – Present

- Managed a robust Linux infrastructure (600+ systems), performing routine updates, network configuration, cloning, system maintenance, system configuration, solved critical usability issues for users under time constraints.
- 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.
- Provide direct support for 1500+ students and faculty, resolving environment issues (Python packages, shell configs, Linux modules) across multiple courses and research projects.
- Diagnosed and resolved a critical full-system outage independently during off-hours, restoring services without supervision; identified root cause, implemented fix, and documented the incident.

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

- Led a cross-functional team of 26, coordinating logistics and communication for 5,000+ students during both virtual and in-person programs.
- Led recruitment, training, and execution of both virtual and in-person events during COVID-19.

Skills

C, C++, Python, Shell (Bash & ZSH), Linux Kernel Programming, TCP/IP, network troubleshooting, automation systems, Ansible, VMware, Wireshark, Git, tcpdump, SQL, Agile/Scrum, OpenLDAP, syslog, systemd, DevOps, physical hardware diagnosis, DNS, Troubleshooting, Firewalls, Systems Administration, Network Security, DHCP, Cybersecurity, Information Security, Database servers, Application servers, Cloud Computing, Communication, Research computing, LDAP