

Carolyn Topper

github.com/surfingkittens

SUMMARY

With six years of experience supporting technology in higher education, I am dedicated to furthering my expertise in audio-visual systems, electronics, and systems administration. My work is multi-modal and you may find me troubleshooting a computer, staffing an event, or changing out hardware inside of a machine. I am operating system agnostic and comfortable with Windows, macOS, and Linux in various generations and distributions and am presently learning my way around FreeBSD. I am security-minded and hope to expand my scope into more advanced networking techniques.

Currently, I am working toward revitalizing an existing infrastructure by writing and deploying automation code and centralizing and securing user authentication. I am also vocal about promoting ideals that will strengthen inter-institutional relationships and greater facilitate the future of scientific and research computing.

EXPERIENCE

Systems Administration, Sr. Analyst

September 2022 – Present

The University of Chicago - Department of Astronomy and Astrophysics and KICP, PSD

Chicago, IL

- Lateral move with goal of determining the technical direction of the department
- Working on documenting, maintaining, and eventually upgrading and automating infrastructure running a combination of CentOS and FreeBSD
- Inherited an environment running on decades-old hardware with no data redundancy. After being denied funding for upgrades and repairs, built a Proxmox virtualization cluster worth over \$250k in less than a month by finding donors, utilizing industry contacts, and recycling equipment from other departments
- Upgraded fleet of staff desktops and expanded usage of Active Directory
- Implemented IPAM, DCIM, and ticketing systems
- Consolidated all licenses into a single Docker container and developed tool to view license status that integrates with FlexLM
- Built software repository

Systems Administration, Sr. Analyst

July 2022 – August 2022

The University of Chicago - Department of Computer Science, PSD

Chicago, IL

- Promotion from Audio-Visual, Sr. Analyst (below); job encompassed duties of both positions
- Designed network architecture and provided AV consultation for an emerging program's move to a new building
- Managed systems in an almost entirely Unix environment, including macOS laptops and workstations (ranging from v. 10.14 Mojave through 12 Monterey), Raspberry Pi's, and Linux desktops and servers (primarily Ubuntu 18.04 through 22.04), and provided support for office equipment and client BYOD laptops and smartphones
- Used version control (Git) to create departmental user accounts and modify DHCP and DNS configuration files to reserve IPV4 addresses for desktops and servers and set human-readable hostnames in BIND
- Did SLURM administration on a HPC cluster (IAM, resource allocation, and resolving node drain states)
- Used configuration management software (Puppet) to push software to machines, install updates, ban rogue accounts, and add users to servers and POSIX groups via configuration files
- Assigned firewall rules in iptables
- Pointed Apple devices in DEP to our management server at simpleMDM for enrollment and configuration
- Created software packages in Munki to deploy to department iMacs and MacBooks
- Used Time Machine to create backups for department managed Macs
- Utilized VLANs to create network segmentation and configured user accessible switches to implement VLAN tagging and Spanning Tree to prevent switching loops
- Experience installing operating systems by creating bootable USB media from .iso files using dd or over the network using mirrors in Foreman
- Familiarity with client-hosted virtualization software such as VirtualBox
- Conducted replacement and repair of hardware in desktop machines and servers including fans, PCI-e wireless NICs and SSDs, storage drives (SSD, HDD, NVMe), CMOS batteries, power supplies, and GPUs
- Experience running and managing cable and installing rails for rack mount servers in datacenters
- Automated routine tasks in cron

Audio-Visual, Sr. Analyst

March 2020 – July 2022

*The University of Chicago - Department of Computer Science, PSD**Chicago, IL*

- Took on audio-visual, systems administration, and desktop support tasks to support the University community
- Wrote documentation for the departmental wiki
- Coordinated with University-preferred vendors to RMA failed equipment
- Managed two large video projects of more than twenty-five participants each by organizing a content submissions schedule, conducting follow-ups, and doing post production which included creating title slates, upstream keys, story building, trimming video, audio editing and leveling, transcoding, and captioning
- Created written and recorded materials to facilitate the transition to fully remote teaching during the COVID-19 stay-at-home order. Topics included: Zoom webconferencing use and features, use of iPads for remote instruction, recording and uploading with Panopto, video editing (Quicktime, iMovie, DaVinci Resolve) and transcoding (Handbrake), and using LTI in Canvas
- Built a recording studio for instructors to create materials for remote instruction. Features included a chromakey (green screen), two seating locations/‘scenes,’ a document camera, laptop inputs, a preview monitor, three point lighting, lapel and tabletop microphones, and button control interfaces
- Helped to design and implement solutions and create training documentation for hybrid classroom and meeting solutions following the return to the office
- Saved the department over \$30,000 in labor costs by pulling and terminating cable for two projects: one to improve the reliability of digital signage, the other to add additional networking functionality to projectors in instructional lab spaces, where I also reprogrammed their Extron devices and Crestron control interfaces
- Minimized wireless microphone distortion and attenuation by reprogramming the mics and their receivers after finding better frequencies using a spectrum analyzer
- Recorded and live streamed events (to Zoom, YouTube, and our own infrastructure) using PTZ cameras, Shure microphones, Behringer mixers, and OBS software, using NDI Studio Monitor to facilitate live switching of cameras

Program Assistant

October 2017 – January 2019

*The University of Chicago - Graham School of Cont. Liberal and Professional Studies**Chicago, IL*

- Troubleshooted connectivity problems between AV systems and client devices including signal conversion issues between digital and analog interfaces, firmware bugs, overheating, EDID issues, and mechanical damage
- Installed updates and patches to a fleet of HP laptops running Windows 7 and Windows 10
- Resolved database discrepancies following a migration of student information from PeopleSoft to Destiny

Media Desk Assistant

September 2015 – June 2017

*Kalamazoo College - Information Services**Kalamazoo, MI*

- Prepared AV equipment such as DSLR cameras and digital voice recorders for rental including verifying functionality and conducting small repairs, inventory of peripherals essential to equipment function, ensuring the clearing of data upon return, and including basic usage instructions
- Ensured DVDs from the library’s media collection were in good working condition, attempting disk repair where possible and necessary
- Served as the first line of support by troubleshooting issues with desktops in labs and classrooms and AV equipment over the phone

EDUCATION**Kalamazoo College**

Kalamazoo, MI

*Bachelor of Arts, Studio Art - Cum laude**2013-2017*

- Honors in Major, Minor in Japanese Language
- Japanese National Honor Society (2017)
- *Teaching Assistant - Figure Drawing - Department of Art and Art History (March - June 2016)*
- *Research Assistant - Transcription Writer and Translator for “War Memories: Intergenerational, Intercultural Oral History Project” - Department of East Asian Studies (February - August 2017)*

Extron Institute

Online

*Various Certifications**2022*

- AV Associate, ECS
- Verify with last name ‘Topper’ and training ID ‘1101676’: <https://www.extron.com/training/transcript.aspx>

TECHNICAL SKILLS

Operating Systems (Unix, Linux, macOS, Windows) · Markup Languages (HTML5, CSS) · Programming (Bash, cron) · Networking (DHCP, DNS, NAT, switching, VLANs, TCP, UDP, OSI, copper and fiber optic cable) · Pro AV Equipment (Shure, Behringer, Crestron, Extron, Blackmagic Design, matrix switchers, extenders, HDBaseT, lamp and laser projection, EDID, HDCP) · Terminal Use and Navigation (symlinks, rsync, dd, vi) · Remote Access (VNC, MeshCentral, PuTTY, SSH) · VPN (Cisco AnyConnect, proxying, SSH tunneling), Diagram Creation and Interpretation (AutoCAD, Revit, electronic signal flow diagrams) · Remote Collaboration (Zoom, GoToMeeting, WebEx, Teams, Slack) · Git · Configuration Management (Puppet, simpleMDM) · Digital Media Production (OBS, Adobe CC, DaVinci Resolve, Audacity)