CAROLYN TOPPER

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SUMMARY

With seven years of experience supporting technology for education and scientific research, I am dedicated to furthering my expertise in systems administration and improving upon existing IT infrastructure and practices wherever I go. My background is somewhat non-traditional and I am knowledgeable not only in UNIX administration and networking, but also electronics and media production and post-production. I have dabbled in proprietary enterprise software and their FOSS counterparts, as well as custom applications written by research institutions and national laboratories.

EXPERIENCE

Senior Systems Administrator   September 2022 – Present
The University of Chicago - Department of Astronomy and Astrophysics and KICP   *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, FreeBSD, and Debian
- Inherited an environment running on decades-old hardware with no data redundancy and so 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
- Attained approval to upgrade storage infrastructure for backups, logging, and NFS-style home directories, to be implemented over 2-3 years, adding a full petabyte of storage capacity to the department
- Upgraded fleet of staff computers and introduced Active Directory for authenticating to Windows machines
- Implemented Netbox as an IPAM and DCIM solution
- Consolidated all licenses into a single Docker container and developed tool to view license status that integrates with FlexLM
- Built a repository for specialized software
- Built and maintained systems for research projects which are sponsored by federal grants and agencies
- Implemented Crowdstrike on department servers

Senior Systems Administrator   July 2022 – August 2022
The University of Chicago - Department of Computer Science   *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 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 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 cards, storage drives, CMOS batteries, power supplies, and GPUs
- Experience running and managing cable and installing rackmount equipment

Audio-Visual, Sr. Analyst   March 2020 – July 2022
The University of Chicago - Department of Computer Science   *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 web-conferencing use and features, use of iPads for remote instruction, recording and uploading with Panopto, video editing and transcoding, and using LTI in Canvas
- Built a recording studio for instructors to create materials for remote instruction. Features included a chromakey, 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

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) · Hypervisors and Virtualization (VirtualBox, Proxmox) · Markup Languages (HTML5, CSS, PHP) · Scripting (Bash, cron) · Programming (Python, Javascript, Ruby) · Networking (BIND, Infoblox) · Pro AV Equipment (Shure, Behringer, Crestron, Extron, Blackmagic Design) · 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 (Salt, Puppet, simpleMDM) · Digital Media Production (OBS, Adobe CC, DaVinci Resolve, Audacity) · Databases (OpenLDAP, mySQL, PostgreSQL, MongoDB, MariaDB)