

# Lily Foster

Computer Techromancy 🌸 Pronouns: she/her or they/them  
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## Summary

Individual with a robust background in technology, security, problem-solving, and STEM education who is seeking to evolve operating systems and improve computing infrastructure.

## Skills

- Information Security
- Software Reproducibility
- Open-Source Collaboration
- Documentation
- Information Technology
- Computer Networking
- STEM Education
- Operating System Design
- Full-Stack Development

## Work

### SC Dept of BHDD (formerly SC Dept of Mental Health)

Senior Information Security Analyst

March 2022 to April 2025

Under the Office of Network and Information Technology (ONIT), I was information security team lead and analyst, and implemented network security monitoring and SIEM correlation:

- Built out Ansible roles to automatically deploy and manage all aspects of a high-performance Splunk cluster with various data sources and threat correlation detections
- Built out Corelight infrastructure to gain visibility into east-west network traffic
- Led a team of five people to build out a growing information security program

### Clemson University

Information Security Architect

May 2020 to May 2021

Under the Office of Information Security and Privacy (OISP), I was the primary architect and engineer for security systems implemented by the OISP:

- Built out and maintained network TAP and monitoring infrastructure with Gigamon
- Developed scripts and applications used to accelerate SOC tasks and incident response
- Built out and maintained system and website vulnerability scanning infrastructure
- Managed firewalls (including F5 AFM, Cisco ASA, Palo Alto, iptables)
- Created SIEM correlations and alerts with Splunk Enterprise Security

Information Security Analyst

January 2017 to April 2020

Under the OISP, I was a full-time analyst of Clemson's computer network:

- Identified potential cybersecurity threats
- Responded to and mitigated incidents and identified threats
- Prevented previous and potential threats from occurring in the future

# Volunteer

## *FIRST* South Carolina

Event Tech, Info Tech, FTA

January 2015 to May 2025

After three years of experience of participating in *FIRST* robotics programs and several years mentoring, I volunteered with *FIRST* South Carolina to support the programs:

- Helped teams with their control systems and volunteered at events as the *FIRST* Technical Advisor (FTA) for *FIRST* Tech Challenge in the SC region
- Planned event tech to support field networks, speakers and displays, and live streaming
- Managed organization-level technology, such as Microsoft 365

## *FIRST* Robotics Teams

Mentor

September 2016 to May 2025

Being involved in *FIRST* robotics programs for 10 years, initially as a student and then a volunteer, I've mentored several FTC and FRC teams:

- Facilitated middle and high school students learning Blockly and Java programming
- Taught concepts for writing control systems and feedback loops (such as PID)
- Aided students in designing high-reliability robotics software

## Nixpkgs/NixOS

Committer, Node.js Team, COSMIC Team

December 2022 to present

I am committer for the Nixpkgs project and review contributions as well as specifically work on:

- Nixpkgs Node.js tooling
- NixOS systemd-initrd implementation
- NixOS COSMIC dekstop environment
- Quite a few packages as maintainer, including some core components like GStreamer

## Sonic Pi

Core Developer

October 2021 to present

I work on the core development team for Sonic Pi, a code-based music creation and performance tool with a focus on being used in education, and contribute to the software:

- General Linux knowledge including experience with audio routing and tools
- C++ and build system knowledge

# Education

## Clemson University

Computer Science, B.S.

July 2014 to May 2019

I studied computer science with interests in education, math, and language, including courses:

- Distributed and Cluster Computing
- Computer Security Principles
- Research & Development in Games for Learning