

Lily Foster

Computer Techromancy and STEM Education 🌸 Pronouns: she/her or they/them
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Summary

Individual with a strong background in technology, problem-solving, and music who is seeking to evolve declarative operating systems and facilitate STEM education in South Carolina.

Skills

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

Work

SC Department of Mental Health

Information Security Analyst

March 2022 to present

Under the Office of Network and Information Technology (ONIT), I am an analyst and implementor for network security monitoring and SIEM correlation:

- Building out a Splunk cluster with various data sources and threat correlation detections
- Building out Corelight infrastructure to gain visibility into east-west network traffic

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 tools and scripts used to accelerate SOC tasks and incident response
- Built out and maintained system and website vulnerability scanning infrastructure (Tenable.sc and Netsparker)
- 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 Office of Information Security and Privacy (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 present

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

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

FIRST Robotics Teams

Mentor

September 2016 to present

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 by:

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

Nixpkgs/NixOS

Committer, Node.js Team

December 2022 to present

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

- Nixpkgs Node.js tooling
- NixOS systemd-initrd implementation
- 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:

- Research & Development in Games for Learning
- Foundations of Digital Media and Learning
- 2D Game Engine Construction
- Virtual Reality Systems