

Rose Spangler

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EDUCATION

Michigan State University

B.S. in Computer Engineering

» GPA - 3.82

May 2025

East Lansing, Michigan

EXPERIENCE

Elektrobit

Software Engineer

May 2022 – Present

Farmington Hills, Michigan

- » Worked directly with Ford clients, providing support for container-based Adaptive AUTOSAR platform
- » Wrote custom Yocto recipes to allow an embedded target to boot using an NFS-mounted root filesystem, enabling multiple engineers to develop software using only a single board
- » Collaborated closely with teammates to develop tests and fix bugs for a Classic AUTOSAR cryptography module
- » Created detailed, step-by-step instructions to help other engineers cross-compile code and build custom Linux kernels, and contributed to internal training materials to improve explanations of complex topics

MSU IT Network Services

Student Info Tech Assistant

Jan 2022 – Present

East Lansing, Michigan

- » Worked collaboratively to create visualization of scripts and their dependencies using Python and Graphviz
- » Rewrote internal Python tool which automatically configures SolarWinds devices using SNMP and LLDP
- » Helped establish department coding standards and set up CI/CD to ensure projects meet standards

Software Contracting

Freelancing

Aug 2019 – Aug 2021

Remote

- » Created unique, animated data visualizations using Vue and D3.js to present data more intuitively
- » Developed a custom Python library to help quickly create web scrapers for client

FIRST Robotics

The Gearheads - Team 1189

Oct 2018 – Aug 2021

Grosse Pointe, Michigan

- » Coordinated multiple sub-groups and guided projects as team captain to build a functional robot
- » Passed down knowledge on computer science fundamentals, basic Java programming, and Git version control

ACTIVITIES

FIRST at Michigan State

President

Sep 2021 – Present

East Lansing, Michigan

- » Directed kickoff event hosted at MSU to help high school teams network with each other and prepare for the season
- » Met with head of FIRST in Michigan to discuss organization goals and strategies to work more closely with MSU
- » Active volunteer at middle and high school competitions to help students solve control systems issues

Spartan Linux Users Group

Secretary

Oct 2021 – Present

East Lansing, Michigan

- » Co-founded and promoted student organization for Linux beginners and enthusiasts
- » Helped establish high-bandwidth, on-campus package mirrors for popular Linux distributions

OpenSight

Project Lead

May 2019 – Aug 2020

Remote

- » Led development of a free, open-source Python 3 vision suite targeted towards FIRST Robotics
- » Created custom Raspberry Pi image to simplify installation for end-users
- » Set up complex, multi-stage CI pipelines to automatically build packages and Raspberry Pi images
- » Worked with cross-compiled OpenCV and GStreamer to stream H.264 video on a low-bandwidth connection

AWARDS

Eagle Scout

2020

- » Achieved rank by organizing a project to deliver books to local, low-income elementary schools during COVID-19

Certifications

2019

- » Earned Red Hat Certified System Administrator (RHCSA) certification for Linux system administration
- » Earned CompTIA A+ Certification for IT skills