

# Elizabeth Ziemer

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## Education

### B.S. in Electrical Engineering

Rose-Hulman Institute of Technology

~ Minor in Robotics

~ Relevant Coursework: Intro to Signal Processing, Intro to Digital Systems, AC Circuits, DC Circuits, Japanese 1/2

Aug 2021 - Present

Terre Haute, IN

## Experience

### Software Engineering Intern

Kratos Defense

~ Wrote robust drivers and Python test scripts for the characterization and active use of RF hardware including matrix switches and signal generators.

~ Contributed to Kratos's internal Automated Test System library, a large repository widely utilizing OOP and utilized across the company.

~ Spearheaded research and implementation of Kratos Space's latest RedHat OpenStack deployment. Wrote documentation for both CentOS and RHEL, planned networking VLAN and provisioning, physically configured servers and racks in a new lab, and collaborated with RedHat to ensure successful deployment of the project.

June 2022 - August 2022

Colorado Springs, Colorado

## Leadership

### Vice President

Rose Tech Radio Club

~ Dedicated to student exploration of electronics, radio, community service, analog and RF-to-IP technology. Grew club from 3 to over 25 members.

~ Managing club affairs in student government, fostering collaboration with other collegiate radio clubs, and working to create unique student opportunities involving radio technology.

Dec 2021 - Present

Terre Haute, IN

### Sophomore Advisor

Percopo Hall, Residence life

~ As a resident on the freshman floor of Percopo Hall, I am a full-time resource available to new students for academics and acclimation to college life. Responsible for planning and leading on-campus activities, facilitating hall communication, and responding to the needs of residents.

Aug 2022 - Present

Terre Haute, IN

## Projects and Involvement

### RF Payload – Rose Rocketry

~ Participant in Rose Rocketry's NASA USLI team, utilizing mainly Python and GNU Radio to develop RF direction-finding technology to locate Rose Rocketry's full-scale rocket after deployment of its payload.

Dec 2021 - Present

### ROSE-BUD

~ Member of the ROSE-BUD scholarship program, assisting with our yearly 'SPARK!' robotics competition for local girls and young women in pursuit of advancing STEM accessibility on a local level.

Aug 2021 - Present

### Independent robotics projects

~ Developed open-source software tools running onboard on various robotics platforms

~ Early field developer for the Misty II development platform by Misty Robotics

~ Won Sony Corporation's robotics programming contest for their ERS-1000 platform

~ Volunteer for FIRST Robotics Challenge and Tech Challenge events serving middle and high school students

### Independent RF projects

~ Designed a balloon with GPS data and WSPR (FSK) transmissions that circled the globe

## Skills

Programming languages: Python, Java, C, MatLab

Tools: Git, Maple, GNU Radio, LaTeX

Software: Linux, Azure, OpenStack

Certifications: FCC General Class radio license