

Rose E. Engineer

Rose-Hulman Institute of Technology
Optical Engineering
3.98 GPA
Junior
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Objective

To obtain a summer internship experience that involves optical engineering

Education

Rose-Hulman Institute of Technology (2017-present)

- Bachelor of Science in Optical Engineering and Engineering Physics
- Expected graduation in May 2021

Related Coursework

Optical

Physical and Geometrical Optics, Photonic Devices, Linear Optical Systems, Optomechanics,

Engineering Physics

Nano-engineering, Many Particle Physics, Modern Physics, Electric and Magnetic Fields, Semiconductors

Work and Research Experience

Internship at IU Center for Exploration of Energy and Matter, Bloomington, IN (May–July 2018)

This internship required designing parts and working with a machine shop to create a system designed to align a 100 x 100 mm microchannel plate with a Low Energy Neutron Source for neutron imaging.

NASA GSFC (Optical Design), Terre Haute, IN (2017-May 2018)

This research experience explored using spectrometer software to collect power data from colored LEDs. This data tested and compared properties of multiple models of integrating spheres.

Skills and Abilities

Software

- Creating spot diagram and ray fan plots in MATLAB
- Analyzing mesh in COMSOL
- Designing lenses in Zemax
- Analyzing data with Excel
- 3D modeling in SolidWorks

Cleanroom

- Fabricating silver nanoparticles and nickel nanowires
- Using an x-ray diffraction machine and scanning electron microscope

Lab Work

- Setting up lenses and screens using optical rails, filters and fiber light sources
- Measuring aberrations using focused images
- Locating of cardinal points of a lens

Activities

Optical Society of America Student Chapter (*Vice President, Winter 2017*)

Rose-Hulman Women's Track Team (*Captain, Fall 2017*)

Society of Photographic Instrumentation Engineers (*member*)

Rose-Hulman Astronomical Society (*member*)