

# Rose E. Engineer

Rose-Hulman Institute of Technology  
Engineering Physics  
3.98 GPA  
Junior  
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## Objective

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To obtain a summer internship experience that involves engineering physics

## Education

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### Rose-Hulman Institute of Technology (2017-present)

- Bachelor of Science in 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

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### 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 (Engineering 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

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#### *Software*

- Creating spot diagram and ray fan plots in MATLAB
- Analyzing mesh in COMSOL
- Designing 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

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Engineering 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*)