

Autumn Zemlicka

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EDUCATION

B.S. Mechanical Engineering, Engineering Management Minor

University of Colorado Boulder

May 2021

Cumulative GPA: 3.1 Major GPA: 3.3 Past Term GPA: 4.0

TECHNICAL SKILLS

Computer Skills: MATLAB, Mathematica, MS Excel, MS Powerpoint, CAD (SolidWorks Associate Certification), SimVascular, Meshmixer, Arduino

Hands On: Laser Cutting, Mills, Lathes, Prototyping, 3D printing

RELEVANT EXPERIENCE

Undergraduate Research Assistant, University of Colorado Boulder

Spring 2020 - Present

Image-Based Modeling for Cardiovascular Systems

- Developed a library of models for arterial hemodynamics in human patients from medical image (CT and MRI scans) and microscopy image data.
- Used custom software tools for image analysis and modeling, as well as extracting quantitative data.
- Collaborated with team members to develop a bench-top design to model flow through vascular systems.

Dynamics Project, University of Colorado Boulder

Fall 2019

- Analyzed the dynamics of a mangonel and compared experimental data to theoretical calculations and provided a report on findings.
- Organized and led a team of five to ensure project completion by the deadline.

First Year Project, University of Colorado Boulder

Fall 2016

Yo-yo De-spin Project

- Participated in team meetings by contributing ideas and solutions to problems.
- Developed and programmed an efficient method to detach mass from the rocket wirelessly using Arduino.
- Prototyped and assembled a 3D-printed rocket to compare to simulation.

WORK EXPERIENCE

Team Member, Longmont Humane Society

July 2017 – July 2018

- Provided daily shelter cleaning and provided hands-on care for all shelter animals while maintaining a collaborative working environment.
- Facilitated client visits with animals and made appropriate adoption matches.
- Documented and updated online database with relevant animal and client information.
- Reviewed lost and found reports to contact owners and/or appropriate shelters to aid in returning stray animals to their owners.