

Alexandra Z. Gobeler

agobeler@andrew.cmu.edu · 856-982-7475 · alexandragobeler.wordpress.com

OBJECTIVE

To attain a creative engineering role at Walt Disney Imagineering. Areas of interest include ride, animatronic, articulated costume, and parade float design.

EDUCATION

Master of Entertainment Technology

Carnegie Mellon University, Entertainment Technology Center, Pittsburgh, PA

anticipated May 2019

Bachelor of Science, Mechanical Engineering

Bioengineering Concentration, Honors Concentration

Rowan University, Glassboro, NJ

May 2017

Magna Cum Laude

GPA 3.8

RELEVANT SKILLS

Software: SolidWorks, ANSYS, LabView, MATLAB, Arduino, and Simulink

Fabrication: Basic carpentry power tools, lathe, mill, water jet, 3D printer, and lasercutter

Platforms: HTC Vive, HoloLens, MaKey MaKey, CAVE

WORK EXPERIENCE

Professional Intern – Design & Engineering Simulation and Analysis Team

Walt Disney World, Orlando, FL

May – Aug. 2016

- Used MATLAB and Simulink to simulate collision detection of animatronic figures
- Compared strain data from simulation work performed in ANSYS to data taken from strain gauges on an animatronic figure using a Mathcad script and machine design concepts
- Developed a MATLAB script to filter through strain data for an animatronic figure and determine areas in animation sequence to be redesigned
- Used ANSYS FEA software to perform stress analysis on animatronic figures in order to ensure longevity and safety of design, as well as analyze material choice in the design
- Designed part to be used in character mask using SolidWorks Surfacing Tools package to work with complex geometries

DESIGN PROJECTS

Building Virtual Worlds – Sound Designer/Producer/Experience Designer – ETC Fall 2017

- Rapid prototyping game design course that encourages collaboration across disciplines and creative design
- Designed and built several props, as well as created a variety of soundscapes for different games
- Led team meetings, kept team on track and organized, and took meeting notes as producer

Disney Imaginations Competition – Team Lead/Experience Designer – Fall 2016

- Combined art and engineering technologies to redesign an outdoor space at Rowan University
- Set deadlines and tasks for team to complete challenge
- Researched virtual reality technology using programs Unity and Maya

ENGINEERING PROJECTS

Air Engine – Thermal-Fluid Sciences – Fall 2015

- Designed assembly in SolidWorks
- Performed calculations to achieve optimal timing
- Fabricated design in machining lab using mill, lathe, water jet, 3D printer, and laser jet
- Achieved 3100 rpm and 1st place in competition

SAE Supermileage – Indep. Researcher – Fall 2015

- Performed aerodynamic analysis of car shell design using SolidWorks CFD software and wind tunnel
- Tested carbon fiber manufacturing process using MTS
- Used ANSYS FEA software to simulate three-point bend of carbon fiber pieces

PROFESSIONAL SOCIETIES

- Society of American Military Engineers, Co-Founder, Vice President
- Society of Women Engineers, Vice President, President

Sept. 2014 – Jan. 2016

Dec. 2014 – Jan. 2016