

Alexandra Z. Gobeler

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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, MATLAB, Arduino (C++), Simulink, Simscape Multibody, Python, Raspberry Pi

Fabrication: Carpentry tools, lathe, mill, water jet, 3D printer, lasercutter

WORK EXPERIENCE

Professional Intern – Design & Engineering: Modeling, Simulation & Training Tools Team

Walt Disney World, Orlando, FL

June – Dec. 2018

- Providing support for animated figures currently in production by communicating with mechanical designers, show programmers, and animators to meet the needs of the project
- Developing kinematics models using SolidWorks, MATLAB, and Simscape Multibody
- Re-designing parts of animated figures in the field by analyzing problem, designing a solution, and communicating with those affected by the changes

Professional Intern – Design & Engineering: Modeling, Simulation & Training Tools Team

Walt Disney World, Orlando, FL

May – Aug. 2016

- Developed a MATLAB script to filter through strain data for an animatronic figure and determined areas in animation profile to be redesigned
 - Analyzed structural parts of an animated figure using ANSYS FEA software in order to ensure parts are passing safety standards, as well as provide redesign suggestions
 - Designed a part of a character mask using SolidWorks Surfacing Tools to enable work with complex geometries
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CREATIVE DESIGN PROJECTS

Miracle Workshop – Mechanical Designer – ETC Spring 2018

- Semester-long client project revitalizing an installation at Give Kids The World Village in Kissimmee, FL
- Retrofitted a traditional bike cable puppet with servo motors and electric actuators to create an animatronic figure
- Responsible for designing figure in SolidWorks, hardware selection, assembly, and maintenance plan

Building Virtual Worlds – Experience Designer – ETC Fall 2017

- Created several guest experiences using VR and AR technology while working on multidisciplinary teams

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

- Redesigned an outdoor space at Rowan University to help students relax by combining art and engineering technologies
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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
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PROFESSIONAL SOCIETIES

- Themed Entertainment Association, NextGen Member
- Tau Beta Pi Engineering Honor Society Member

- Society of Women Engineers, Rowan Chapter President from Dec. 2014 – Jan. 2016