Sidney M. Velado

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Seeking a technical summer internship in the field of Mechanical Engineering, Mechatronics/Robotics or Sofware Engineering

EDUCATION

CARNEGIE MELLON UNIVERSITY
Third Year
Bachelor of Science in Mechanical Engineering
Current Semester GPA: 2.7/4.0
2015 | Expected 2019

CHESHIRE ACADEMY
High School Diploma
First Honors, Effort Honors
AP Scholar Award
2014 | 2015
GPA: 3.72 / 4.0

COURSEWORK

Principles of Imperative Computation
Engineering Design
Dynamics
Fluid Dynamics
Engineering Statistics and Quality Control
Gadgetry: Sensors, Actuators, and Processors
Numerical Methods

SKILLS

PROGRAMMING
Python - Proficient
C - Proficient
C++ - Elementary(Arduino)
Matlab - Proficient
HTML 5/ CSS - Elementary
Gadgetry: Sensors, Actuators, and Processors

ENGINEERING
CAD - Solid Works
FEA Simulations
Design Projects
Arduino Development

ENGINEERING EXPERIENCE

UNIQUE ARTIFACT RECOVERY PROJECT
Engineering Design I Project II
Oct 2017 – Nov 2017

- Worked in a 5 person team to design a mechanical arm gripper to lift a unique object, swing it back and forth, and drop it in the original position without failing.
- Designed parts including gripper contact points and gripper fingers in Solid Works
- Machined different components of overall team design with 3D printers, laser cutters, and standard machine shop.

ASTRONAUT'S COAT RACK PROJECT
Engineering Design I Project I
Sep 2017 – Oct 2017

- Designed a acrylic bracket in accordance to different geometric constraints to withstand the weight of the Astronaut's gear (40 lb)
- Machined our different bracket iterations and testing with a laser cutter.

US EMBASSY ENVIRONMENTAL HUB SUMMER INTERN
US Department of State
June 2015 – July 2015 | San Jose, CR

- Networked with different NGOs and Civil Engineering firms to discuss possible engineering projects and applications that would use United States Government funds and grants
- Managed the Environmental Hub's Facebook page

PROGRAMMING EXPERIENCE

FUNDAMENTALS OF PROGRAMMING FINAL PROJECT
15-112 Final Project
Sep 2015 – Dec 2015

- Developed a basic graphing/painting utility using Python with voice control, image manipulation, and web cam support.

ARDUINO FINAL PROJECT
Gadgetry Final Project
Jan 2017 – May 2017

- Programmed and built an Arduino circuit multiplayer game with LEDs as a user interface

LEADERSHIP AND EXTRACURRICULARS

2015 | 2017 Society of Professional Hispanic Engineers
2016 | 2017 Carnegie Mellon Club Lacrosse Vice President
2017 Phi Delta Theta PA Rho Social Chair
2017 CMU Racing: Formula SAE