

Sidney M. Velado

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

GOAT: MECHANICAL ROBOT

Sep 2017 – Oct 2017

- Created a robot modeled after a goat, modeling its movements with coupler curves recreated in Motion Gen.
- Used a Tamiya motor set and laser cut acrylic to recreate Motion Gen data into an actual design
- Optimized design to clear a track of rocks, stairs, and hurdles

UNIQUE ARTIFACT RECOVERY PROJECT

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.

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