

# Sidney M. Velado

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## EDUCATION

**Carnegie Mellon University**, Pittsburgh PA

Bachelor of Science in Mechanical Engineering & Bachelor of Science in Robotics

GPA: 2.7/4.0

## EXPERIENCE

**Robotics Institute Biorobotics Laboratory**, Carnegie Mellon University, Pittsburgh PA, Summer 2018

**Robotics Engineer**

- Designed different mechanical components in CAD for a wide array of projects
- Machined, 3D printed, and laser cut designed components and integrated them into robotic systems
- Programmed in a Linux Environment (Ubuntu)
- Coded in a C++/C and Python and implemented them in a ROS framework

## PROJECTS

**ODrive ROS Package, ODrive Robotics**, Summer 2018 - Present

- Contributed to the ODrive Robotics Documentation
- Developed ROS package for the ODrive motor controller
- Collaborated with other programmers to test and deploy ODrive ROS package

**Urban Search and Rescue Robot**, Carnegie Mellon Robotics Competition, March 2018

- Built a robot with the Lego Mindstorms kit, custom acrylic, and 3D printed components
- Programmed controls and teleoperation in Robot C framework

**G.O.A.T Mechanical Robot**, Fall 2017

- Created a three-bar linkage mechanical robot modeled after a goat
- Used a combination of CAD modeling and rapid manufacturing techniques to test prototypes and final design

## RELEVANT COURSES

Robot Kinematics and Dynamics

Mobile Robot Development

Principles of Imperative Computation

Computer Vision (Spring 2019)

Dynamic Systems

Machine Learning (Spring 2019)

## LEADERSHIP AND EXTRACURRICULARS

**Society of Hispanic Professional Engineers**, Fall 2015

- General Body Member

**Internal Outreach Chair, Spanish and Latin Student Association**

- Recruited incoming students to the organization and improved membership by 30%
- Ran multiple events to attract students to the organization
- Organized forums for students to be able discuss the LatinX experience at Carnegie Mellon

**Phi Delta Theta Social Chair**

- Planned a formal dinner for 150 people with at a popular Pittsburgh Venue
- Led a committee to organize and plan all social functions
- Managed a \$14,000 budget

**CMU Club Lacrosse Vice President**

- Set up transportation to games
- Ran the club's finances in cooperation with the university

## SKILLS

**Programming:** ROS, C++, MATLAB, Python, C, Development in Linux, Git

**Engineering:** Machine Shop, SolidWorks, CNC Machining, 3D Printing, FEA Simulation

**Spoken Languages:** Fluent in Spanish; Conversant in French