

Daniel Melo Cruz

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EDUCATION

Bachelor of Science, Computer Engineering

Cumulative GPA: 3.85

The Pennsylvania State University, University Park, PA

Expected graduation date: **May 2021**

ACTIVITIES AND PROJECTS

Vice President of Penn State Robotics Club

The Pennsylvania State University, University Park, PA (Fall 2019 – Spring 2020)

- Take over and run the regular weekly meeting when President is not available
- Assisting club's members by answering questions about the material used in the meetings, like Arduinos, breadboards and components used in the robots
- Work with treasurer to get funding for the club for equipment and travel

Research Assistant

The Pennsylvania State University, University Park, PA (Summer 2019-Fall 2019)

- Performed tests with an 8-channel Ultrasound tomography system
- Became acquainted with Texas Instruments AFE5808 and TSW1405 evaluation modules
- Used imaging phantoms to evaluate data acquired from transducers

Software Engineering Intern

TV Cabo Branco, Joao Pessoa, Brazil (Summer 2018)

- Adapted a speaker recognition algorithm that uses machine learning written in Python to work in real-time.
- Implemented an algorithm in Python to train the voices that will be recognized
- TV Cabo Branco is an affiliate of the Globo broadcasting conglomerate, the biggest TV network in the country

Fire-Fighting Robot Contest

The Pennsylvania State University, University Park, PA (Spring 2019)

- Developed a fully autonomous robot that simulates a fire protection situation in a house for a regional competition
- Served as a full-stack robotics developer, gaining experience in manufacturing, electronics, sensing and controls
- Developed code on Arduino and an algorithm for the robot to autonomously navigate through a maze
- Worked with L293D motor controller and a variety of sensors such as ultrasonic and infrared sensors

RELEVANT COURSEWORK

- Programming and Computation II: Data Structures and Object-Oriented Programming (CMPSC 132)
- Computer Organization and Design (CMPEN 331)

LANGUAGE & COMPUTER PROFICIENCY

Software Proficiency: Python, C, Lua, HTML, CSS, Java, Verilog

Languages: Spanish, Portuguese (native language)

AWARDS

- The President's Freshman Award (The Pennsylvania State University, 2018)