

# Daniel Melo Cruz

706 University Drive, State College, PA 16801 | dmc6264@psu.edu | (814) 384-5758 | dan30github.github.io

## EDUCATION

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### Bachelor of Science, Computer Engineering

**Cumulative GPA: 3.85**

The Pennsylvania State University, University Park, PA

Expected graduation date: **May 2021**

## ACTIVITIES AND PROJECTS

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### Software Engineering Intern

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

- Adapted an open source speaker recognition algorithm written in Python to work in real-time
- Became acquainted with machine learning and artificial intelligence algorithms used in speaker recognition
- Implemented an algorithm in Python to train the voices that will be recognized
- Worked in a team of four developers in a professional setting using the Linux operating system
- TV Cabo Branco is an affiliate of the Globo broadcasting conglomerate, the biggest TV network in the country

### Software/Hardware Developer - HackPSU Technology Team

*The Pennsylvania State University, University Park, PA (Fall 2019)*

- Joined the Technology Team of HackPSU, the Penn State student-run hackaton with over 900 participants
- Work in a team to develop 3D printed open source RFID registration boxes using git and agile workflows
- Adapt previous Arduino code developed in C++ to work in Raspberry Pi with Python.

### Vice President - Penn State Robotics Club

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

- 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
- Take over and run the regular weekly meeting when President is not available

### Robotics Developer - ShepRobo Fire-Fighting competition

*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

### Summer Research Assistant - Almekkawy Lab

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

- Performed tests with an 8-channel Ultrasound tomography system
- Improved the connections and components of the system to get the desired output

## RELEVANT COURSEWORK

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- Data Structures, Object-Oriented Programming, Introduction to Systems Programming
- Computer Organization and Design: Implemented a simple version of a CPU with Verilog

## LANGUAGE & COMPUTER PROFICIENCY

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**Software Proficiency:** Python, C, Java, Lua, HTML, CSS, Verilog, MIPS Assembly Language

**Languages:** English, Spanish, Portuguese (native language)

## AWARDS

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