

ANDREW BARBOSA

Boynton Beach, FL | (561) 542-7287 | abarbos3@fau.edu | www.linkedin.com/in/andrew-barbosa-a71190113

EDUCATION

BS | Computer Engineering & Computer Science | Florida Atlantic University | Boca Raton, FL | May 2019

Core GPA: 3.511/4.0

Relevant Courses:

- *Structured Computer Architectures*
- *Computer Operating Systems*
- *Intro to Embedded System Design*
- *Electronics 1*
- *Design and Analysis of Algorithms*
- *Engineering Design 1*
- *Circuits 1*
- *Intro to Artificial Intelligence*

EXPERIENCE

- **Boca Bearings Internship** | January 2017 – Present | Created various electro-mechanical projects utilizing SolidWorks and Fusion 360 for 3D design, 3D printing for fabrication, with Arduinos and Raspberry Pi for system control.
- **FAU Henderson High School STEM Assistant** | January 2017 – November 2017 | Assisted students with various engineering assignments and projects. Assisted with the organization of regional Seaperch competitions. Operated a multitude of 3D Printers, CNC Machines, and other tools to design and fabricate parts for various projects including a GT-EV Car and other school projects.
- **Marine Robotics Club** | September 2015 – Present | Designed, Fabricated, and Implemented autonomous marine vehicles to compete in the AUVSI Foundations family of competitions. Vehicles utilized cutting edge technology including LIDAR, SLAM, and Acoustic based navigation systems among a host of other sensors to perceive and navigate the competition field.

TECHNICAL PROFICIENCIES

- C
- C++
- Python
- OpenCV
- CSS
- HTML5
- Oracle SQL
- ROS (Robot Operating System)
- Arduino
- MSP430
- Raspberry Pi
- SolidWorks
- Fusion360
- 3D Printing
- Windows
- MacOS
- Linux
- Visual Studio
- QT Compiler
- TI GCC
- IDLE
- Spyder
- MS Office Suite
- Linux Terminal

RELEVANT PROJECTS

MARINE ROBOTICS CLUB

Fall 2015 – Present

Club President, January 2017 – Present

- Augmented club membership measures through robust recruitment and retention programs
- Increased awareness and support of club initiatives via strategic communications with university administration
- Collaborated with industry affiliates to grow sponsorships and provide networking opportunities

RoboSub Team Captain, September 2015 – Present

- Appointed leader of design phase of fully autonomous submersible vehicle
- Effectively led nine cross-functional team members through more than 1000 man hours
- Prepared team for annual AUVSI Foundation's RoboSub competition

SMART FISH TANK

Senior Capstone Design

Spring 2018

- Designed a Smart Fish Tank that automatically monitors and adjusts temperature and chemical properties of the tank's environment. Data is reported to a smartphone app where the user can adjust environmental parameters.
- Chemical properties are monitored through a probe system and modified by adding in solution to the tank in precise quantities via a custom-made micro fluid dispenser.

SMART AC SYSTEM

Embedded System Design

Fall 2015

- Created a Smart AC system. Vents open and close based on the location's temperature allowing either cool or warm air to be delivered to the areas that need it most.
- Implemented using the TI MSP430 microcontroller running C code.