

Emily S. Andrade

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Florida Atlantic University: *Bachelor of Engineering in Mechanical Engineering, May 2024, Boca Raton, FL*

Education

Tufts University | Medford, MA

- B.S. in Mechanical Engineering | Attended 2019-2021

Florida Atlantic University | Boca Raton, FL

- B.S. in Mechanical Engineering | Diploma expected 2024

PROJECTS

A.D.U.E. | All Domain Urban Experimentation

- Project with USSOCOM/USASOC to create efficient solutions to counter facial recognition technology by manipulating machine learning algorithms and neural networks.

MBTA Bus Timer | MBTA API, laser cutting, VR, LabView, 3D printing

- Developed a virtual reality experience using Vuforia and Labview to display bus times
- Built a physical timer clock with a 3D printed gear system and laser cut body pieces which encapsulated a servo motor programmed to turn a dial to count down the next bus arrival
- Collaborated with team members to delegate individual project responsibilities

Motorized Blocks | LabView, Github, 3D printing, Laser Cutting

- Created a tech-smart toy for children at the Tufts University local pre-school
- Programmed a smartphone app to be used with the blocks and move motors and LED lights.
- Collaborated with local school to discuss with clients their desired product

Tufts University ME10 Final Project | SOLIDWORKS, FEA

- The project was to create a CAD and FEA model of a 3-tier towel rack. The models helped prove the efficiency of the material and build of the rack. By testing the loads on the models we were able to see if the rack was sustainable when forces are applied to it.

Theater Tech Microphone Analysis | Java Eclipse, SQL Server

- Developed a program which utilizes text readers to receive and analyze a document including every actor, times they perform on stage, and their corresponding microphones. Users would run the program when a microphone broke and the program would list available microphones for replacement and update the broken microphone.

ACADEMIC ENRICHMENT

Duke Coursera Certificate Programs

- Java Programming: Solving Problems with Software (Aug 2016)
- Programming Foundations with JavaScript, HTML and CSS (Nov 2016)
- Java Programming: Arrays, Lists, and Structured Data (Jul 2017)

Microsoft Technology Associate

- Database Administration Fundamentals (Dec 2017)

VOLUNTEER EXPERIENCE

Girls Who Code (Aug 2017-2019)

Founder / Secretary

- Taught Java to groups of up to 3 girls each week and organized monthly women in STEM speakers

WORK EXPERIENCE

SOFWERX(Jan 2022 - Present)

-Cybersecurity and Engineering Intern

- Pursue software and software-based physical methods to provide both offensive and defensive options for special operations warfighters against Facial Recognition (A.D.U.E)

Perfume Collection (Aug 2015 - Present)

-Sales Associates

- Communication skills while speaking with customers, attended to customers by responding to their inquiries, received, stocked, and organized inventory

Palm Beach Zoo (Aug 2021 - Present)

-Guest Services Agent

- Interact with guests entering the Zoo and handle ticket and membership sales, guest questions, carousel, train ride, Lorieet Loft operations, and parking lot assistance.

SKILLS & INTERESTS

- **Language:** English (Native), Spanish (Native), Advanced French (6 years)
- **Programming:** Proficient in NetBeans, Eclipse, SQL Server, Microsoft Office (Word, PowerPoint, & Excel), Mac Operating Systems, Java, Python (libraries - NumPy, Matplotlib), LabView, Arduino, OpenCV, Tensorflow, Matlab.
- **CAD:** SolidWorks (including FEA)
- **Fabrication:** 3D printing, laser cutting, soldering