

# Gregory Dsouza

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Strong mechanical engineer able to optimize complex projects and find creative solutions via programming to achieve team goals. **Experienced in many programming languages (C, C++, Python, C#).** Special interest in **humanoid robotics and prosthetics.** Currently seeking internships in robotics, biomedical engineering, and software systems. Strong foundation in biomechanics, experienced with OpenSim and 3D Slicer.

## EDUCATION

**B.SC. MECHANICAL ENGINEERING**  
Embry-Riddle Aeronautical University  
May 2025 | Daytona Beach, FL  
Cum. GPA: 3.8

## LINKS

Portfolio: [Gregory's Portfolio](#)  
Github: [gregorydsouza](#)  
LinkedIn: [Gregory Dsouza](#)

## COURSEWORK

### UNDERGRADUATE

Biomechanics  
Biosolids  
Finite Element Analysis  
Numerical Methods + Algorithms  
Mechanical Vibrations  
Heat Transfer  
Thermodynamics  
Material Science  
Machine Design

## SKILLS

### SOFTWARE

OpenSim, 3D Slicer, Source Control, Git, GitHub, Visual Studio, CATIA V5, SolidWorks, ANSYS Workbench, Blender, OpenCV, Linux

### BEST SOFT SKILLS

Critical Thinking, Leadership, Adaptability, Verbal and Written Communication, Time Management, High Stress Environments

### PROGRAMMING

Python, C, C++, C#, Matlab  
Java, JavaScript, HTML, CSS  
GLSL, HLSL, Cg

### OTHER

CPR Certified (Actively Maintained)  
Trained in First Aid

## PROJECT EXPERIENCE

### INDIENOMICON MEGA HEALTH JAM | LEAD PROGRAMMER

Sep 2024 | Orlando, FL

- Lead team of six who had no prior experience with rapid prototyping to create a game in **under 48 hours**
- Trained team members to use an unfamiliar framework while simultaneously coordinating software design and structure
- Presented final project to a panel of judges

### OCEANS OF HOPE | ADAPTIVE KAYAKING MECHANISM

August 2024 – Present | Daytona Beach, FL

- Designed and coded actuators and sensors for actively assisting paraplegics and quadriplegics through kayaking motion
- Aided with redesign of a non-permanent mounting system of the mechanism to the base of the kayak.
- Submitted regular progress reports and coordinated stakeholder's needs and incorporated them into mechanical design.

### BRAIN BASH! | ENGINEERING BLOG

Dec 2022 – Present

- Developed and managed website hosted on GitHub.
- Required extensive use of source control systems (Git) including managing a local and live version of the website, rolling back errors on the live version, and managing package differences on the cloud.

## WORK EXPERIENCE

### EMBRY-RIDDLE AERONAUTICAL UNIVERSITY | TEACHING ASSISTANT

September 2024 – Present | Daytona Beach, FL

Actively assisted students in their lab with learning various Numerical Methods and how to code them in Matlab. Reviewed class material and provided feedback to help improve the course. Provided supplementary information and resources to help students reach their learning outcomes.

### EMBRY-RIDDLE AERONAUTICAL UNIVERSITY | DYNAMICS GRADER

Jan 2024 – May 2024 | Daytona Beach, FL

Learned how to follow student's problem-solving process to identify mistakes that they made on course assignments. Provided personalized feedback and graded assignments according to course deadlines. Worked closely with the professor for the course to identify areas where students were struggling.

## CERTIFICATES

January 2023	Google IT Automation with Python
September 2022	American Heart Association Heartsaver CPR & AED
October 2020	Unique World Senior Robotics Course
August 2020	Fundamentals of RedHat Enterprise Linux