Gregory Dsouza

http://gregorydsouza.github.io | gregory@ggg777.com | 386.278.0718 |
https://www.linkedin.com/in/gregory-dsouza-690367265/

EDUCATION

B.Sc. Mechanical Engineering
Embry-Riddle Aeronautical University
June 2025 | Daytona Beach, FL
Cum. GPA: 3.8

COURSEWORK

UNDERGRADUATE

Biomechanics
Biofluids
Biosolids
Mechatronics
Finite Element Analysis
Numerical Methods + Algorithms
Mechanical Vibrations
Heat Transfer
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

ORGANIZATIONS

ERAU Game Development Club:
Outreach and Events Officer

CERTIFICATES

Google IT Automation with Python
AHA First-Aid, CPR & AED
Unique World Senior Robotics Course
Fundamentals of RedHat Linux

PROJECT EXPERIENCE

INDIENOMICON MEGA HEALTH JAM | Lead Programmer

September 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 (Godot) while simultaneously coordinating software design and structure
- Collaborated using Git and GitHub to manage version control and streamline team contributions
- Created and imported 3D assets using Blender, ensuring compatibility with game systems
- Gained experience presenting and demoing projects to industry judges and a peer audience

OCEANS OF HOPE ADAPTIVE KAYAKING | Team Lead

August 2024 – May 2025 | Daytona Beach, FL

- Applied biomechanics-driven refinement of 4-bar linkage using VICON Nexus motion-capture data to replicate natural paddle motion
- Designed PID-controlled mechatronic assist system using encoder feedback and stroke modeling
- Engineered a modular, waterproof mount using SolidWorks and 3D-printed TPU/PETG
- Integrated principles of materials science for durability and saltwater exposure
- Refined design through rigorous prototyping and stakeholder feedback to ensure usability, comfort, and safety

WORK EXPERIENCE

EMBRY-RIDDLE AERONAUTICAL UNIVERSITY | Teaching Assistant (ES 204: Engineering Dynamics)

January 2025 – April 2025 | Daytona Beach, FL

Created and graded "mini-project" lab assignments in an experimental project-based learning program for a class of 25 students.
Taught students Dynamics concepts by integrating lab assignments to support project-based learning theme. Supported students in achieving learning objectives by hosting out-of-class office-hours to understand student struggles on an individual basis.

EMBRY-RIDDLE AERONAUTICAL UNIVERSITY | Teaching Assistant (ME 320: Fundamentals of Biomechanics)

January 2025 – April 2025 | Daytona Beach, FL

Graded assignments and assisted students with biomechanical analysis, including reach area evaluation and kinematic assessment using VICON Nexus motion capture data and OpenSim simulations. Provided guidance on applying transformation matrices and analyzing segmental motion in non-inertial reference frames. Supported lab sessions and reinforced key concepts through one-on-one and group instruction.

EMBRY-RIDDLE AERONAUTICAL UNIVERSITY | Teaching Assistant (ME 326)

September 2024 – December 2024 | 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.