RIANA MENEZES

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EDUCATION AND LICENSES

Bachelor of Science, Aerospace Structural Engineering — UC San Diego - June 2019
Unmanned Aircraft Pilot License — FAA Part 107 - March 2020
Amateur Radio Technician License — FCC Part 97 – July 2018

SKILLS AND SOFTWARES

Mechanical Design	Technical Writing	Programming	Manufacturing
SolidWorks, AutoCAD	Grants, Reports, Work	Python, C++	Composite layup
FEA, CATIA, GD&T	Instructions - MS Office	MATLAB	Metallic tooling, CNC

ENGINEERING EXPERIENCE

California Space Grant Consortium - Mechanical Engineer **July 2018 – Oct 2019**

- Managed a team tasked with designing and integrating a 10 cm^3 satellite (CubeSat) capable of operating in LEO
- Developed CAD models using SolidWorks and performed thermal & structural analysis for survivability in space
- Authored a proposal for NASA's *CubeSat Launch Initiative* to facilitate lunar communications & navigation
- Launched payloads 80,000ft – 130,000ft high as a test bed for CubeSat electronic & thermal systems

UC San Diego – Aerospace Structural Engineer *(Senior Design Project)* **January 2019 – June 2019**

- Designed and manufactured a 9 ft folding wing for a UAV using composite and metallic materials
- Used SolidWorks and Abaqus to model the wing and created work instructions & schedules for manufacturing
- Determined composite layup & hinge design using hand calcs, finite element analysis & 3D printed prototypes
- Increased flight time and distance by 50%, compared to original aluminum wings

SAMPE at UCSD - Vice President **November 2018 – June 2019**

- Served as VP of UCSD's Society for the Advancement of Materials & Process Engineering (SAMPE) chapter
- Coordinated meetings with composite manufacturing professionals and procured materials from local companies
- Assisted UCSD engineering orgs with composite projects, including fabricating the fuselage & fins of a 9ft rocket

Tennessee Tech University - Robotics Research Intern **June 2015 – August 2015**

- Conducted research in mobile robotics through a grant from the National Science Foundation
- Tested the mapping & navigation systems of autonomous robotics and determined their feasibility in shipyards
- Measured the reliability of hardware and software components in mobile robots using statistical analysis

SMUD Solar Regatta - Construction Manager **September 2014 – May 2015**

- Designed and manufactured a solar powered boat to compete in SMUD's North California Solar Regatta
- Managed project finances & secured a $1500 grant from CRC's Educational Fund to buy supplies & power tools
- Led the fabrication of the boat, wrote work instructions, and trained junior staff on manufacturing procedures

LEADERSHIP & WORK EXPERIENCE

MESA at Cosumnes River College – Instructional Assistant **February 2020 - Current**

Manage the college's math, engineering and science center & assist faculty and students in STEM classes

Greenlight for Girls – Workshop Facilitator **August 2016**

Facilitated an educational workshop for young girls 4-14 years old to introduce them to the world of engineering

Cosumnes River College – College Tutor **August 2013 – July 2016**

Tutored a diverse group of students in English, Math, Physics, Astronomy and Economics, edited 200+ essays

RELEVANT COURSEWORK

▪ Aerospace Structural Mechanics ▪ Structural Analysis ▪ Orbital Mechanics ▪ Composite Design & Analysis
▪ Aerospace Structural Repairs ▪ Aerodynamics ▪ Finite Element Analysis ▪ Space Mission Analysis & Design