

# Tiana Menezes

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## EDUCATION

University of California, San Diego – B.S Aerospace Structural Engineering

June 2019

Relevant Coursework:

- Aerospace Structures: Mechanics, Design, and Repair
  - Design of Composite Structures
  - Solid Mechanics & Mechanical Behavior of Materials
  - Finite Element Analysis, MATLAB
  - Space Mission Analysis and Design
  - Structural Analysis
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## WORK EXPERIENCE

UC San Diego CubeSat Development Program – San Diego, California

July 2018 – June 2019

Affiliated with NASA through the California Space Grant Consortium

- Position: *CubeSat Researcher*
  - Conducted research in integrated systems for a 1U CubeSat, and operated ground station
  - Launched near-space duration balloon; reached 108,000 feet in low earth orbit
  - Authored a proposal for the NASA CubeSat Launch Initiative to build a Lunar Relay Communications Network to support operations for NASA's Lunar Gateway

California Department of General Services – West Sacramento, California

December 2015 – December 2016

- Position: *Mechanical Engineering Assistant*
    - Designed internal systems (HVAC, Electrical, and Plumbing) for state buildings throughout California
    - Drafted blueprints and designed AC units on AutoCAD
    - Conducted on-site inspections to check condition of critical components
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## PROJECTS

Senior Design Project: Composite Analysis Lead – San Diego, California

January 2019 – June 2019

- Wrote MATLAB program to perform failure analysis for a high aspect ratio folding composite wing of a long-range UAV
  - Determined margin of safety and composite layup for skins and spars for a 9ft wing under strenuous load conditions
  - Gained hands-on experience with pre-preg carbon fiber, tooling & bonding during the fabrication of the wing
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## ACHIEVEMENTS

Recipient of the Virgin Galactic Gavin Jones Scholarship – Long Beach, California

October 2018 – Present

- 1 of 7 UC San Diego students recognized by Virgin Galactic to make an impact on space exploration
- Awarded a cash prize and a year-long mentorship commitment from engineers at Virgin Orbit

SMUD 2015 Solar Regatta Winner – Herald, California

August 2014 – May 2015

- Lead designer for Cosumnes River College's Engineering Club that built an 8ft boat powered only by solar energy
  - Won 5 awards including Best Design, Best Technical Drivetrain, and Judge's Choice award
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## SKILLS & LICENSES

- Programming: MATLAB, C++, Python
  - Finite Element Analysis: ABAQUS, SOLIDWORKS Simulation
  - Computer Aided Design: AutoCAD, Autodesk Inventor, SOLIDWORKS 3D, SketchUp
  - Licenses: HAM Radio Technician Class License (FCC Certified), California Boating License
  - Hard Skills: Composite Lay-up, Fabrication, Machining, Tooling, Soldering, Bonded Assembly & Repair
  - Soft Skills: Problem Solving, Time Management, Leadership, Verbal & Written Communication, Critical Thinking
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## ROLES & AFFILIATIONS

- SAMPE at UCSD – Vice President
- MESA (Math, Engr., Science Achievement) – Alumnus
- CA Space Grant Consortium – CubeSat Ops Lead
- Society of Women Engineers – Member