

Jackson R. Tiller

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Education

School: The University of Texas at Austin

Major: Aerospace Engineering and Engineering Mechanics

May 2019

Major GPA: 3.64/4.00 | Overall: 3.57/4.00

Technical Experience

- R&D Intern, Triumph Aerostructures 5/2018 – 8/2018
 - Designed parts for thermoplastic induction welding press
 - Worked with technicians to build and assemble welding press
 - Designed new stabilator for the Blackhawk RFP
 - Created Bills of Materials from both 2D and 3D models
- GNC Subsystem Lead Engineer, Texas Spacecraft Laboratory (TSL) 1/2018 – Present
 - Leads team of 8 engineers to develop software for the Guidance Navigation and Control for CubeSat
 - Gives meetings, establishes deadlines, distributes work, and oversees progress for GNC team
 - Applied STK software to verify accuracy of orbital mechanic functions
 - Presented workshop over basic STK and GitHub operations
- Researcher, Texas Spacecraft Laboratory (TSL) 9/2017 – 1/2018
 - Significantly contributed to the guidance and navigation for the ARMADILLO Satellite
 - Developed orbital mechanic functions to interpret satellite data and propagate orbit
 - Presented solutions to validate the code for satellite to team of peers and research professor
 - Coded programs to verify the accuracy of trajectory calculations
 - Certified Amateur Radio Technician to operate satellite from ground station
- Member, Longhorn Rocketry Association (LRA) 9/2015 - 5/2016
 - Designed rocket using Open Rocket software
 - Analyzed projected trajectory through simulations
 - Optimized rocket design to meet mission requirements
- Study Abroad in Santander, Spain 7/2016 - 8/2016
 - Lived with a non-English speaking host family
 - Studied Engineering Communication and Spanish Culture
- Solution Design Project: Turbulence Damping Flight Stabilizer 7/2016 - 8/2016
 - Flight dynamics engineer on a multidisciplinary team of four
 - Researched and analyzed turbulent effects on aircraft
 - Documented and presented solution design

Leadership Experience

- Lifegroup Leader, Access Christian Fellowship 6/2017 – 5/2018
 - Facilitates discussions over religious studies and social injustice among college students
 - Mentors college students through life in college
 - Coordinates campus outreach events for new students
- Camp Counselor, Briarwood Retreat Center 5/2015 - 8/2016
 - Managed 4-8 kids for 24 hours, 6 days a week
 - Facilitated religious studies discussions daily
 - Taught safety and nature seminars
 - Planned and communicated weekly events and itinerary

Extracurricular Activities

- Member, HELPS Ministry Team 9/2016 – Present
- Member, Harvest Mission Community Church (HMCC) 1/2016 - Present
- Member, American Institute of Aeronautics and Astronautics (AIAA) 9/2016 - 6/2017

Skills

- **Languages: Proficient:** MATLAB || **Intermediate:** Python, HTML, CSS || **Familiar:** JavaScript, Java
- **Software:** CATIA, Solidworks, STK, Makers Studio, MS: Excel, PowerPoint, Word
- **Other:** Thermoplastics, Induction Welding, GD&T, GitHub, SpicyPy python package, Linux OS

Relevant Coursework

Satellite Based Navigation ▪ Applied Orbital Mechanics ▪ Attitude Dynamics ▪ Propulsion ▪ Spacecraft Dynamics ▪ Flight Dynamics ▪ Structural Dynamics ▪ Compressible Flow ▪ Low Speed Aerodynamics ▪ Engineering Computation