Jackson R. Tiller

2815 Rio Grande St. #205 | Austin, TX 78705
214-250-6212 | jackson.r.tiller@gmail.com

Education

School: The University of Texas at Austin
Major: Aerospace Engineering and Engineering Mechanics   May 2019
GPA: 3.57/4.00

Academic Experience

- **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
- **Manufacturing Engineering Intern, Triumph Aerostructures**   5/2018 – 8/2018
  - Developed multiple Bill of Materials for several RFQ's
  - Calculated masses, volumes, labor and material costs for aircraft parts
  - Analyzed potential client's documents to ensure the engineering data is sufficient for manufacturing
- **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 - 8/2015
  - 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:** Matlab (proficient), Python (intermediate), Java (familiar)
- **Software:** CATIA, Solidworks, STK, Makers Studio, MS: Excel, PowerPoint, Word
- **Other:** Linux OS, Aerospace manufacturing knowledge, GD&T, GitHub, SpiceyPy python package

Relevant Coursework

Satellite Based Navigation ▪ Applied Orbital Mechanics ▪ Attitude Dynamics ▪ Propulsion ▪ Spacecraft Dynamics ▪ Flight Dynamics ▪ Structural Dynamics ▪ Compressible Flow ▪ Low Speed Aerodynamics ▪ Mechanics of Solids ▪ Foundations of Management ▪ Linear Systems Analysis ▪ Statics ▪ Engineering Computation ▪ Thermodynamics ▪ Vector Calculus