

# Jackson R. Tiller

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## Education

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School: The University of Texas at Austin

Major: B.S. Aerospace Engineering and Engineering Mechanics

May 2019

Overall GPA: 3.57/4.00

## Technical Experience

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- R&D Intern, Triumph Aerostructures 05/2018 – 05/2018
  - Designed new stabilator for the Sikorsky Blackhawk RFP in CATIA
  - Designed parts for thermoplastic induction welding press proof of concept
  - Worked with technicians to build and assemble welding press
  - Ran calibration tests and calculated optimal input variables for induction welder
  - Expanded on university induction welding research, for industry aerospace applications
  - Created Bills of Materials from both 2D and 3D models
- Lead Engineer, GN&C Subsystem, Texas Spacecraft Laboratory (TSL) 01/2018 – 09/2018
  - 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 GN&C team
  - Integrated GN&C software with other satellite subsystems
  - Applied STK software to verify accuracy of orbital mechanic functions
  - Presented workshop over basic STK and GitHub operations
- Researcher GN&C Subsystem, Texas Spacecraft Laboratory (TSL) 08/2017 – 01/2018
  - Significantly contributed to the guidance and navigation for the ARMADILLO Satellite
  - Developed orbital mechanic functions in python to interpret satellite data and propagate orbit
  - Presented solutions to validate the code for satellite to team of peers and research professor
  - Coded python testing scripts to validate the accuracy of trajectory calculations
  - Certified Amateur Radio Technician to operate satellite from ground station
- Member, Longhorn Rocketry Association (LRA) 08/2015 – 05/2016
  - Designed rocket using Open Rocket software
  - Simulated and Analyzed projected rocket trajectory
  - Optimized rocket design to meet mission requirements
- Study Abroad in Santander, Spain 06/2016 – 08/2016
  - Lived with a non-English speaking host family
  - Studied Engineering Communication and Spanish Culture
- Solution Design Project: Turbulence Damping Flight Stabilizer 06/2016 – 08/2016
  - Flight dynamics engineer on a multidisciplinary team of four
  - Analyzed Feedback Controls system level design
  - Documented and presented solution design

## Student Body Involvement

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- Lifegroup Leader, Access Christian Fellowship 05/2017 – 05/2018
  - Facilitated discussions over religious studies and social injustice among college students
  - Mentored college students through life in college
  - Coordinated campus outreach events for new students
- Member, HELPS Ministry Team 09/2016 – Present
  - Setup, Breakdown, and Transport A/V equipment for student ministry needs
- Member, Harvest Mission Community Church (HMCC) 01/2016 - Present
- Member, American Institute of Aeronautics and Astronautics (AIAA) 09/2016 - 6/2017
- Camp Counselor, Briarwood Retreat Center 05/2015 - 8/2016
  - Managed 4-8 kids for 24 hours, 6 days a week, for entire summer

## Skills

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- **Languages: Proficient:** MATLAB || **Intermediate:** Python, HTML, CSS || **Familiar:** JavaScript, Java
- **Software:** CATIA, Solidworks, STK, GitHub, Autodesk Inventor, Linux OS, Makers Studio, MS: Excel, PowerPoint, Word
- **Other:** Thermoplastics, Induction Welding, GD&T, Space Systems Engineering, Producibility Design, Satellite-Based Nav.