

Tyler Gester

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tylergester.com

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Education:

- Bachelor of Science in Mechanical Engineering December 2017
- Bachelor of Science in Computer Science December 2017
- The University of Alabama Honors College, Tuscaloosa AL
Minor: Mathematics GPA: 4.0/4.0

Computer Languages / Tools:

- Java, C++, Python, VBA, Assembly (PIC 24/Atmega), Matlab/Simulink, SolidWorks, Linux development tools, and ROS

Research Experience:

- Senior Design (2016 – present)
Mechanical Engineering and Computer Science
 - Modified kids' electric vehicle controls for disabled child who has no long bones in his arms or legs
 - Interfaced controls with Arduino and Sabretooth motor controller
 - Programmed WiFi-based, remote-control website to work with any smartphone using ESP-8266
- Undergraduate Researcher at The University of Alabama
 - Distributed Autonomy Lab (2015 – present)
 - Designed and fabricated long-term underwater node to monitor river water temperature and depth
 - Integrated water temperature and pressure sensors with Arduino
 - Engines Lab (2015 – present)
 - Selected and designed butterfly injector test stand
 - Designed control system for test stand
- Alabama Astrobotics Team Member (2014 – present)
NASA Robotic Mining Competition (RMC) and NASA Centennial Challenge
 - Provided critical design direction for the autonomy subsystem
 - Performed structural and force analysis on the mechanical base in SolidWorks
 - Won first place in national RMC competition (2015 and 2016)
 - Passed Level 1 and competed in Level 2 of NASA Sample Return Centennial Challenge (2016)
 - Mentored students at University Place Elementary School

Work Experience:

- Intern at Hexagon — Intergraph (Summer 2016)
Department: Security Systems
 - Integrated ROS with proprietary API
 - Researched and developed demo for machine learning algorithm in Python
- Co-Op at Southern Company (Spring 2014, Fall 2014, Summer 2015)
Department: Engineering and Construction Services, Mechanical Design
 - Designed piping systems for power plants
 - Conducted engineering piping system inspections

Awards:

- Alpha Lambda Delta, Phi Eta Sigma, and Pi Tau Sigma Honors Societies
- The University of Alabama Presidential Scholarship
- The University of Alabama College of Engineering Scholarship

Activities:

- Varsity member of Alabama Crew (2012 – 2013)
- Boy Scouts of America: Eagle Scout, Order of the Arrow, Triple Crown
- Flying (private pilot license since age 17, currently managing partner of RV-6A experimental airplane)
- Hiking