

ALAN M. CUMMINS

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OBJECTIVE

To learn new skills and obtain experience in the field of aerospace engineering through internship or co-op.

EDUCATION

Texas A&M University, College Station, Texas

Bachelor of Science in Aerospace Engineering, Honors, May 2022

Cumulative GPA: 3.89/4.0

Minors: Engineering Project Management, Mathematics

EXPERIENCE

Aerospace Human Systems Laboratory, College Station, Texas

Student Technician, January 2020 – Present

- Using MATLAB and Python code to automatically register human models for use in EVA suit applications

Texas A&M Engineering Extension Service, College Station, Texas

Student Worker II, May 2019 – August 2019

- Maintenance and alpha and beta testing of web-based cybersecurity courses
- Teaching Python, Linux, and basic electronics to high school students using Raspberry Pi
- Data entry, running data reports, and cybersecurity topic research

RESEARCH

Texas A&M Sounding Rocketry Team, College Station, Texas

Testing and Operations Subteam Member, August 2019 – Present

- Testing of full-scale hybrid rocket engines
- Design and repair of apparatus for testing hybrid rocket engine
- Maintenance of DAQ system including load cell, thermocouples, and pressure transducers
- Development of operational safety and risky analysis documents

AggieSat Lab, College Station, Texas

Communications Subteam Member, January 2019 – August 2019

- Developing crosslink system between two satellites and uplink/downlink system between satellites and ground station

Guidance, Navigation, and Control Subteam Member, August 2019 – October 2019

- Simulation of orbit and attitude of 6U cubesat using STK
- Evaluation of sensors (e.g. sun, star, horizon), reaction wheels, and magnetorquers

SKILLS

- Python, C++, MATLAB, LabVIEW
- SolidWorks proficiency, Autodesk Inventor proficiency
- Microsoft Office Suite including SharePoint
- Novice machining skills (mill, lathe)
- HAM radio technician license (callsign KI5HEK)

PROFESSIONAL ORGANIZATIONS & ACTIVITIES

American Institute of Aeronautics and Astronautics, January 2019 – Present

Pi Mu Epsilon Mathematics Honor Society, October 2019 – Present

Phi Eta Sigma National Honor Society, April 2019 – Present

HONORS

Texas A&M College of Engineering Dean's List, Spring 2019

NASA High School Aerospace Scholar, November 2016 – August 2017

- 4 month online course followed by a week-long Mars mission simulation on-site at Johnson Space Center