

Andrew Neish

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Education

UC Davis:

Bachelors of Science in Aerospace Engineering and Mechanical Engineering. Minor in Economics.
Graduated with Highest Honors: June 2014. GPA: 3.86

Stanford:

Masters in Astronautics and Aeronautics.

Graduation Date: June 2016.

Ph.D. in Astronautics and Aeronautics.

Expected Graduation Date: June 2019.

Work Experience

Blue Origin Engineering Intern, Flight Sciences Division: June-August 2016

- Navigation intern working on centimeter-level accuracy GPS
- Created Real Time Kinematic Extended Kalman Filter for New Shepard and New Glenn Rockets
- Worked with several different GPS receiver hardware configurations
- Tested the Extended Kalman Filter using a signal simulator with hardware in the loop
- Real world testing of the filter with GPS receivers and antennas

NASA Ames EAP Engineering Intern, Engineer Systems Division: June-September 2015

- Lead of Orbital Mechanics and Spacecraft Attitude Mechanics for NASA's EcAMSat mission
- Developed full Matlab/STK model for attitude propagation of passively stabilized satellites
- Integrated attitude predictions with thermal and power simulations and was part of a team that developed a novel approach to thermal control for small spacecraft
- Developed full method of power and thermal predictions for satellites in any orbit that are stabilized using magnets and hysteresis rods
- Co-authored paper on EcAMSat and in the development of a paper and software patent on power and thermal environments of passive magnetically stabilized spacecraft

NASA Ames EAP Engineering Intern, Small Spacecraft Division: June-September 2013

- Worked on stability of 6U EcAMSat designed to test antibiotics in microgravity
- Closed out attitude stabilization design for EcAMSat
- Provided additional support in thermal and mechanical engineering
- Continued to develop Matlab and Satellite Tool Kit software for simulated hysteresis rod stability
- Co-Authored and carried out test procedure to characterize hysteresis rods
- Professionally presented work through several rigorous design reviews as well as participated in EcAMSat CDR

Skills

- Experienced in using CAD programs Solid Works and Autodesk Inventor
- 7+ years of experience with Matlab and Simulink
- Experienced with Python and Julia coding language
- Experienced with Satellite Tool Kit (STK) and running STK using Matlab source code
- I have obtained my private pilot certificate and fly General Aviation airplanes

Awards and Honors

- Graduated with Highest Honors from UC Davis
- Given the honor of giving a TEDx talk at TEDxUCDavis 2014 Salon

Leadership/Associations

- Co-Founder of TEDxUCDavis which now sees 3000+ people per year in various events
- Founder of UC Davis cube satellite program which is now funded by and partnered with NASA