

## Jacob Williams

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- Objective** Full-time position in the field of aerospace engineering
- Education**
- Master of Science, Aerospace Engineering (May 2002)**  
University of Texas at Austin – Austin, Texas  
Overall GPA: 3.92/4.00  
Awards: NASA Earth System Science Graduate Student Fellowship,  
Engineering Foundation Endowed Graduate Presidential Scholarship
- Bachelor of Science, Aerospace Engineering (May 2000)**  
University of Florida – Gainesville, Florida  
Overall GPA: 3.89/4.00  
Awards: President’s List, Dean’s List, UF Honors Program,  
Anderson Scholar, Florida Bright Futures Scholarship
- Experience**
- Graduate Research Assistant (August 2000-Present)**  
**Center for Space Research, Austin, Texas**
- Currently developing algorithms and software to facilitate GPS-based formation flying. Developing hardware test bed for real-time formation simulations.
  - Conducted performance testing and preflight validation on the ICESat and TerraSAR-X GPS receivers. Conducted data analysis of on-orbit data.
  - Developed software and testing methodology for GPS receiver performance testing in a simulated spacecraft environment.
  - Extensive work with spaceflight hardware and simulation environments, software development and testing.
- Skills** Proficient in celestial mechanics, satellite navigation, applications of GPS, trajectory optimization, and statistical estimation  
**Programming languages:** MATLAB, C/C++, FORTRAN, and Visual BASIC  
**Applications:** AutoCAD, Mechanical Desktop, Mathcad, LabVIEW, and MS Office  
**Operating systems:** Windows, MacOS X, UNIX, and Linux
- Honors and Activities** Sigma Gamma Tau, Aerospace Honor Society (Former Vice President – UF Chapter)  
Tau Beta Pi, Engineering Honor Society (Former Secretary – Florida Alpha Chapter)  
American Institute of Aeronautics and Astronautics (AIAA)  
American Astronautical Society (AAS)  
Institute of Navigation (ION)
- Selected Publications**
- O. Montenbruck, J. Williams, T. Wang, G. Lightsey. “Preflight Validation of the IGOR GPS Receiver for TerraSAR-X.” DLR-GSOC GTN-TST-0200; Deutsches Zentrum für Luft- und Raumfahrt, Oberpfaffenhofen. May 2, 2005.
- J. Williams, E. G. Lightsey, S. Yoon, R. E. Schutz. “Testing of the ICESat BlackJack GPS Receiver Engineering Model”, ION GPS 2002 Conference, September 24-27, 2002, Portland, Oregon.
- J. Williams. “Testing of the ICESat BlackJack GPS Receiver Engineering Model”, Masters Thesis, University of Texas at Austin, May 2002.

References available upon request