

- EDUCATION**
- Massachusetts Institute of Technology** Cambridge, MA
Master of Science in Aerospace Engineering, June 2007
Thesis Title: Environmental Design Space Model Assessment
GPA: 4.7/5.0
- Purdue University** West Lafayette, IN
Bachelor of Science: Aeronautical and Astronautical Engineering, May 2005
GPA: 3.99/4.0
- Projects included rotating machinery design/build/test, remote control car design and manufacturing, flow optimization of aircraft wings for increased safety, and system architecture development for a manned mission to Mars.
- EXPERIENCE**
- Astronautics Corporation of America** (July 2007 – Present) Milwaukee, WI
- Mechanical design of universal laptop docking station for use in high vibration environments
 - Mechanical design of thermal and vibration test fixtures
 - Avionics assembly thermal and modal FEA analysis
- Gas Turbine Lab, MIT** (2005-2007) Cambridge, MA
- Created thermodynamic engine model and led Pratt and Whitney industry comparison in association with a dozen team members at Georgia Institute of Technology
 - Constructed and managed computer cluster consisting of 23 computation nodes. Developed cluster management software to increase usability by reducing user input 50 times
- Ball Aerospace & Technologies** (Co-Op 2001-2004) Boulder, CO
- **MECHANICAL ENGINEERING:**
 - Developed multi-use flight optic mount for laser communications system to be used in high vibration environment with large thermal gradients
 - Created tooling to transport hazardous chemicals and followed through on part production
 - **PRODUCTION ENGINEERING:**
 - Orchestrated part manufacturing and assembly for on-time part delivery
 - Created build documents and acquired parts/material for manufacturing
 - **SIMULATION & MODELING:**
 - Increased productivity by programming graphical interface to optical system simulation
 - Modeled incoming solar angles on spacecraft telescope to aiding in baffle design
 - **TEST AND ANALYSIS:**
 - Performed thermal analysis of optic substrates aiding in material selection
 - Conducted tensile tests on various epoxies to optimize mixture ratios and cure times
 - Evaluated five new cleanroom product types by analytical chemistry tests
 - Invented and authored new testing methods for cleanroom products which increase test productivity two fold
- SKILLS**
- **ANALYSIS :** Fortran, Matlab, Java, Perl, ANSYS Workbench, ANSYS IceBoard/IcePak, Fluent
 - **CAD :** SolidWorks
 - **PRODUCTIVITY :** PC, Mac, & Linux office applications, Adobe Photoshop, GIMP
- ACTIVITIES**
- Amateur Telescope Making, Photography, Web Design, Music/Guitar, DIY Projector