Andrew S. Zelazny

56 Mallard Drive, East Hartford, CT 06118 • (585) 735 5463 • a.s.zelazny@gmail.com

**Experience**

**Propulsion Systems Engineer** October 2017 – Present

Pratt and Whitney, East Hartford, CT

* Evaluate and adjust engine performance models to meet design goals and hardware constraints.
* Perform statistical analysis to build prediction models of engine durability throughout product lifecycle, affecting maintenance schedules and customer costs.
* Analyze active commercial engine data to monitor engine health, and provide guidance on any corrective action required to maintain performance and safety requirements.

**Performance Engineer** June 2014 – September 2017

QuEST Global, East Hartford, CT

* Evaluated steady-state performance of turbofan engines utilizing NPSS simulations.
* Optimized engine control schedules to meet thrust and certification requirements, and mechanical and lifing limitations for high power, idle, and flight test conditions.
* Worked with a team of five engineers to validate and present final deliverables to customers, demonstrate that requirements were met, and quantify impacts to engine performance.
* Improved existing procedures for developing engine ratings that reduced user error and time to complete a single rating. This effort resulted in a 60% reduction in development time for a typical rating, and over $800,000 in recognized cost-savings over a two-year period.
* Expanded and improved existing methods for loading engine data files and control schedules into MATLAB, allowing greater flexibility in data analysis, manipulation, and visualization.

**Process Improvement Engineer** January 2016 – December 2016

QuEST Global, East Hartford, CT

* Created tools for other employees that reduce time to complete tasks and error-proof processes.
* Developed business cases to support claimed cost-savings of the tools for the customers.

**Graduate Research**  May 2011– May 2014

Clarkson University, Potsdam, NY

* Designed and constructed a small-scale low speed wind tunnel that used a PIV laser system to examine flow fields of round jets in a free stream.
* Focused on mass entrainment and the mixing characteristics of jets with large density ratios.

**Education**

Clarkson University, Potsdam, NY

**Master of Science, Mechanical Engineering** GPA: 3.6/4.0 May 2011 – May 2014

* Completed 33 credits, degree not completed
* Course Work: Advanced Fluid Mechanics, Computational Fluid Dynamics, Finite Element Analysis, Advanced Computer Aided Design

**Bachelor of Science**, **Aeronautical and Mechanical Engineering** GPA: 3.6/4.0 May 2011

* Course Work: Thermodynamics, Design of Propulsion Systems, Dynamic Control Systems, Aircraft Performance