KATHRYN GORDON

4104 Saint Andrews Circle, Apt 2A ◇ Mishawaka, Indiana 46545 ◇ (360) 672-1959 ◇ kgordon3@nd.edu

EDUCATION

University of Notre Dame, Notre Dame, IN Expected May 2016
Doctor of Philosophy in Aerospace Engineering
Thesis Title: *Computational Study of Upstream Propagating Potential Disturbances in an Axial Flow Fan*

Massachusetts Institute of Technology, Cambridge, MA May 2011
Bachelor of Science in Aeronautics and Astronautics, Minor in Philosophy, GPA: 4.3/5.0

EXPERIENCE

University of Notre Dame, Aerospace and Mechanical Eng. August 2011 - Present
Graduate Research Assistant, Turbomachinery Research Lab

- Managed an advanced aeromechanics, aerodynamic performance, and operability test program on Notre Dame's transonic 1.5 stage axial compressor facility (ND-TAC) for Pratt and Whitney. Responsible for program management, facility operation, instrumentation, and data analysis as lead graduate student.
- Investigated impact of rotor tip Mach number and IGV-rotor gap variation on stage efficiency using URANS simulations performed with ANSYS FLUENT and ICEM CFD.
- Designed a flow injection system for Notre Dame's Front Stage Core Compressor (FSCC) facility that resulted in inlet profiles that matched the sponsor's full-scale engine test data.

MIT Gas Turbine Lab, Cambridge, MA Summer 2010
Undergraduate Research Assistant

- Evaluated flow angle probe prototype through wind tunnel testing as part of a joint program between NASA, Kulite, and MIT in order to demonstrate ability to meet NASA targeted probe specifications. Developed and validated five hole probe calibration algorithm in MATLAB.

Electroimpact, Mukilteo, WA Summer 2009
Assistant Engineer

- Created and updated 3-D CAD models of several metric tools using Solidworks to increase accuracy of tool clearances calculations in the future CAD models.

MIT Space Systems Lab, Cambridge, MA Summer 2008
Undergraduate Research Assistant

- Upgraded liquid nitrogen transfer hose to improve efficiency in testing procedures and remodeled satellite's reaction wheel in order to reduce error in angular speed measurement.

TECHNICAL SKILLS

Experience designing experiments and installing and troubleshooting high-speed turbomachinery hardware and instrumentation.

Experience using ANSYS FLUENT and ICEM CFD, Matlab, EDAS, Microsoft Office, LaTex, and Java.

ACTIVITIES AND AWARDS

The Yngve Raustein Award - For fostering a collegial environment and a sense of community, and for demonstrating exceptional engagement and passion in the Unified Engineering class.

Varsity athlete on MIT's cross country, indoor track and outdoor track team. Received NCAA league 'rookie of the year' award in 2007.