CORINNA S. TORABI

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EDUCATION

Johns Hopkins University August 2018 - Present
PhD student in Mechanical Engineering

University of Massachusetts Amherst August 2014 - May 2018
Bachelor of Science in Mechanical Engineering

- Commonwealth Honors College Student
- Awarded Dean's Scholarship for academic merit

Phillips Academy Andover, Andover, MA September 2010 - June 2014

ENGINEERING COURSEWORK

Research and Projects

- Ultrasonic Whistle for Bat Deterrence on Winds Farms: My Honors Thesis research, conducted in the UMass Fluid Structure Interactions Lab, aimed to develop a flow-driven whistle which will deter bats from flying into wind farms. I experimentally analyzed the frequency response under different model characteristics, such as material, tension, and flow angle of attack, with a goal of producing an optimal frequency response that could interfere with bat communication.
- Energy Extraction from Flow-Induced Vibrations: I investigated a method to collect power from an oscillating cylinder in uniform flow in the UMass Fluid Structure Interactions Lab. Using the water tunnel, I analyzed voltage and displacement data to determine system efficiency and power for various flow velocities.
- Senior Capstone Project: Working in a team of six students, I designed and fabricated a wave generator for the Ocean and Marine Research Group at UMass Amherst. Primary tasks include creating and integrating a controller in LabView and designing and fabricating a frame and support system for the actuator in Creo. I acted as the team's main contact person for our project sponsors.

Skills

- MATLAB, ANSYS, Creo, Solidworks, Microsoft Office (Word, Excel, PowerPoint, Project), Atomic Force Microscope, Scanning Electron Microscopy, Clean Room Trained

EMPLOYMENT

Intern at Raytheon Company, Integrated Defense Systems, Marlborough, MA
Antenna Systems Department, Mechanical Engineering Directorate May-August 2018

- Contributed to circuit card assembly design for the Power Systems Team.
- Using Creo, modeled all circuit card elements and optimized spatial layout of components.
- Winner of departmental Intern Presentation Competition.

Intern at Raytheon Company, Integrated Defense Systems, Andover, MA
Microelectronics Engineering and Technologies May-August 2017

- Assisted mechanical team in creating CAD models and technical drawings for custom parts of test fixtures.
- Characterized wafer performance through testing sheet resistivity, Hall Power, and capacitance-voltage. Analyzed wafer surface roughness using Atomic Force Microscopy.
- Worked with photolithography team to examine a new generation of photoresist to ensure it performed the consistently. Measured and analyzed etch rates, energy levels, and coat uniformity.

ACTIVITIES

- Water Polo Club player, enjoy puzzles, soccer, hiking, and other outdoor activities
- Society of Women Engineers
- Bilingual: fluent in German
- Interest in teaching and local community service: volunteer at foods banks and schools, previously worked as a summer math teacher and enrichment coordinator for middle school students in my community