Samuel Morice

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Education

• University of California, Davis

Davis, CA

M.S. Mechanical and Aerospace Engineering

2016 - Current

- Viscous Flow Control for Stall Management

• University of California, Davis

Graduate Student Researcher

Davis, CA

B.S. Mechanical and Aerospace Engineering

2012-2016

- College of Engineering Dean's List: Fall 2012, Winter 2013, Fall 2015

Experience

• UC Davis Center for Human/Robotics/Vehicle Integration and Performance

Davis, CA

2016 - Current

- Researching boundary layer separation control using autonomous vortex generators
- Leading a team of undergraduate engineering students to perform wind tunnel tests in the UC Davis subsonic Aeronautical Wind Tunnel
- Writing and preparing wind tunnel test plans and procedures
- Manufacturing and instrumenting a wing model to use in the wind tunnel
- Designing and building a mechatronic system to activate vortex generators on the test section
- Working with micro controllers to collect and process data from microphones
- Writing Python scripts to analyze experimental data
- Upgrading the current wind tunnel to meet the needs of my experiments
- Writing a thesis that details the experiments done and the results obtained from the experiments

• IMPROVE Air Quality Network at UC Davis

Davis, CA

Student Field Technician

2015-2016

- Repaired vacuum pumps, electronic circuits, and specialized air sampling equipment in a workshop setting
- Tested repaired equipment to ensure quality before sending the equipment to the remote sampling sites
- Traveled around the country to remote air quality sampling sites
- Performed routine maintenance on the air sampling equipment while at the sampling site

Hunter Industries
San Marcos, CA

Engineering Intern

Summer 2014

- Assisted the senior engineers by working on pending projects
- Implemented design changes that improved the irrigation controller product
- Designed and performed tests and trade studies that led to a product redesign which went into production
- Gained 3D CAD and plastic injection molded part design skills using PTC Creo Parametric

• Hunter Industries San Marcos, CA

Machine Shop Intern

Summer 2013

- Assisted the machinists by completing tasks around the machine shop
- Operated manual Bridgeport mills, manual lathes, and Hass CNC lathes.
- Learned 3D modeling using PTC Creo Parametric and SolidWorks

Core Technical Skills

Programming Languages: Python, MATLAB, LATEX, C, HTML5, CSS3 **Fabrication:** Manuel and CNC mill and lathe, soldering, 3D printing