

Samuel Morice

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Education

- **University of California, Davis** **Davis, CA**
2016 – Current
M.S. Mechanical and Aerospace Engineering
 - Detection of Boundary Layer Separation and Activation of Autonomous Vortex Generators
 - **University of California, Davis** **Davis, CA**
2012-2016
B.S. Mechanical and Aerospace Engineering
 - College of Engineering Dean's List: Fall 2012, Winter 2013, Fall 2015
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Experience

- **UC Davis Center for Human/Robotics/Vehicle Integration and Performance** **Davis, CA**
2016 – Current
Graduate Student Researcher
 - 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**
2015-2016
Student Field Technician
 - Repaired vacuum pumps, electronic circuits, and 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**
Summer 2014
Engineering Intern
 - 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**
Summer 2013
Machine Shop Intern
 - 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
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Core Technical Skills

Programming Languages: Python, MATLAB, \LaTeX , C, HTML5, CSS3

Fabrication: Manual and CNC mill and lathe, soldering, 3D printing