

# Sean Wu

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**Aerospace Engineering Master's Candidate** (Dec. 2017) with competence in experimental and computational aerodynamics, conceptual aircraft design, and optimization.

## SKILLS

Computational OVERFLOW/ Chimera Grid Tools (2D), XFOIL, VLM Codes, OpenVSP  
Programming MATLAB/ Simulink, LabVIEW, UNIX (Bash), Git  
Productivity MS Word, Excel, PowerPoint; LaTeX  
Flight Private Pilot: Single-Engine Airplane, Glider; Remote Pilot: sUAS  
Aircraft Homebuilding (RV-12)

## EDUCATION

Dec 2017	<b>M.S. in Mechanical and Aerospace Engineering</b> <i>Topic: Wake-Based Drag Measurements</i>	University of California, Davis
May 2014	<b>B.S. in Aerospace Engineering</b> <i>Capstone Project: Electric Light Sport Airplane</i>	University of Miami, FL

## RELEVANT PROJECTS

2017	Micro-Jets for High Lift Flow and Load Control: Definition of the Wind Tunnel Test ( <i>Boeing</i> )
2016	Improving Short-Term Wind Power Forecasting in the Tehachapi Wind Resource Area
2015	Airfoil Shape Optimization Using a Gradient-Based Method
2013	6-DOF Flight Simulator using Simulink, DATCOM, and FlightGear

## EXPERIENCE

10/2014-present	<i>University of California, Davis</i>  As graduate student researcher to Professor/ Associate Dean C.P. van Dam, I <ul style="list-style-type: none"><li>• managed the aeronautical wind tunnel,</li><li>• developed an improved pitot traverse system using LabVIEW,</li><li>• advised 6 undergraduate researchers on wind tunnel and CFD projects,</li><li>• led a weather balloon field research team,</li><li>• am developing a test proposal for a multi-element airfoil with trailing edge micro-jets.</li></ul>
01/2016-06/2016	As teaching assistant for the capstone aircraft design course, I advised 11 student teams competing in AIAA and NASA design competitions for aerobatic light-sport and distributed-electric commuter aircraft, provided technical support with empirical methods and lower-order aerodynamic codes for performance and handling qualities predictions, and ensured compliance with relevant 14 CFR 23, 25 regulations and ASTM (LSA) standards.
06/2015-08/2015	<i>NASA Glenn Research Center</i>  During a 10-week internship, I developed a helicopter performance prediction model for use in flight trajectory optimization, strengthened my coding abilities in Python, and contributed to the development of the open-source optimization framework, OpenMDAO.