

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.

Sacramento, CA

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	M.S. in Mechanical and Aerospace Engineering <i>Topic: Wake-Based Drag Measurements</i>	University of California, Davis
May 2014	B.S. in Aerospace Engineering <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">• managed the aeronautical wind tunnel,• developed an improved pitot traverse system using LabVIEW,• advised 6 undergraduate researchers on wind tunnel and CFD projects,• led a weather balloon field research team,• am developing a test proposal for a multi-element airfoil with trailing edge micro-jets.
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, providing technical support with empirical methods and low-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, strengthen my coding abilities in Python, and contributed to the development of the open-source optimization framework, OpenMDAO.