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 Office Suite, 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** — University of California, Davis
Topic: Wake-Based Drag Measurements

May 2014 — **B.S. in Aerospace Engineering** — University of Miami, FL
Capstone Project: Electric Light Sport Airplane

RELEVANT PROJECTS

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

EXPERIENCE

10/2014-present — *University of California, Davis*

As graduate student researcher to Professor/ Associate Dean C.P. van Dam, I
- manage 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-fidelity computational 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 — *NASA Glenn Research Center*

During a 10-week internship, I developed a helicopter performance prediction model for use in flight trajectory optimization, strengthening my coding abilities in Python and contributed to the development of the open-source optimization framework, OpenMDAO.