Sean Wu

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Master's in Aerospace Engineering with a focus in aerodynamics, conceptual/ preliminary aircraft design, and optimization.

EDUCATION

M.S. in Mechanical and Aerospace Engineering University of California, Davis Dec 2017
Topic: *Wind Tunnel Wake-Based Drag Measurements*
Awards: *Dean's Graduate Support Fellowship (2014),*
Certificate in Scholarly Teaching Strategies (2017)

B.S. in Aerospace Engineering University of Miami, FL May 2014
Capstone Project: *Electric Light Sport Airplane*
Exchange Student*: University of Cantabria, Spain (2012)*

SKILLS

Computational	OVERFLOW/ Chimera Grid Tools (2D CFD), XFOIL, Vortex-Lattice Codes, OpenVSP
Programming	MATLAB/ Simulink, LabVIEW, UNIX (Bash), Git
Productivity	MS Word, Excel, PowerPoint; LaTeX
Languages	English (fluent), Spanish (working-professional)

EXPERIENCE

University of California, Davis
Graduate Student Researcher 10/2014-12/2017

- Reduced uncertainty in the wind tunnel wake-measured drag from 2.6% to 0.2%
- Created wind tunnel safety and training protocols in collaboration with university safety staff
- Developed a test proposal for an airfoil with active flow control under contract for Boeing
- Mentored 6 undergraduate researchers on wind tunnel and CFD projects
- Led a 7-person weather balloon research team in the Mojave Desert

Grader 06/2017-08/2017
From the Wright Brothers to Drones and Quadcopters

- Researched UAS technologies, applications, and contemporary challenges for an exciting course
- Constructed evaluation criteria for a diverse student roster

Teaching Assistant 09/2015-06/2016
Airplane Performance and Design; Fluid Mechanics

- Advised 11 teams from initial trade studies through preliminary design of aerobatic and distributed-electric aircraft for AIAA and NASA competitions
- Researched emerging technologies such as boundary-layer ingestion and blown-flaps
- Supported students with aerodynamic tools for performance and handling qualities predictions
- Ensured compliance with relevant 14 CFR 23, 25 regulations and ASTM (LSA) standards

NASA Glenn Research Center, Cleveland, OH 06/2015-08/2015
Intern

- Developed a helicopter performance prediction model for use in flight trajectory optimization
- Contributed recommendations for development of the optimization code, OpenMDAO

ACTIVITIES

- UC Davis Sailing Team – Equipment Manager (2016-2017)
- Private Pilot: Single-Engine Airplane (2008), Glider (2016)
- Remote Pilot: Small Unmanned Aircraft Systems (2017)
- Experimental Aircraft Homebuilding (Van's RV-12)