# Sean Wu

**Master's in Aerospace Engineering** with experience in Aerodynamics, Aircraft Conceptual Design, and Optimization

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**Aerodynamics** | **Aircraft Conceptual Design**
**Wind Tunnel Testing** | **Computational Fluid Dynamics (CFD)**
**Team Leadership** | **Technical Documentation and Presentation**

**MS, Mechanical and Aerospace Engineering**, University of California, Davis (Dec 2017)
**BS, Aerospace Engineering**, University of Miami, FL (May 2014)

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|---|---|
| Computational | OVERFLOW (CFD), XFOIL, OpenVSP (3D CAD) |
| Programming | LabVIEW, MATLAB/ Simulink, Linux (Bash), Git |
| Productivity | MS Office (Excel, Word, PowerPoint), LaTeX |

## WORK HISTORY

**Graduate Student Researcher,** University of California, Davis **10/2014-12/2017**
- Developed an experimental test proposal for an airfoil with active flow control under contract for Boeing
- Reduced uncertainty in the UCD wind tunnel wake-measured drag by one order of magnitude
- Created wind tunnel safety and training protocols in collaboration with 2 university safety officers
- Mentored 6 undergraduates in experimental testing and computational fluid dynamics analysis of airfoils
- Led a 7-person weather balloon research team in the Mojave Desert

**Teaching Assistant,** University of California, Davis **09/2015-06/2016**
- Advised 66 students divided into 11 teams in the conceptual design of aerobatic and distributed-electric aircraft for AIAA and NASA competitions
- Researched advanced engineering solutions such as boundary-layer ingestion and blown-flaps
- Demonstrated use of aerodynamic design tools for aircraft performance analysis

**Intern,** NASA Glenn Research Center, Cleveland, OH **06/2015-08/2015**
- Contributed to the development of a flight trajectory optimization code in OpenMDAO
- Gained experience with professional software engineering practices

## ADDITIONAL EXPERIENCE

**Guest Lecturer,** University of California, Davis **02/2018**
- Took students through the conceptual design of a sample aircraft in one interactive class period
- Drafted a 3D aircraft model in real time using OpenVSP
- Demonstrated preliminary aircraft aerodynamic analysis

**Equipment Manager**, UC Davis Sailing Team **05/2016-09/2017**

**FAA Private Pilot**: Airplane Single-Engine Land; Glider
**FAA Remote Pilot**: Small Unmanned Aircraft Systems
**Experimental Aircraft Homebuilding**, Van's RV-12 (empennage, wings, aft-fuselage complete)