

# Carson Vogt

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## EDUCATION

*PhD*, Electrical Engineering (focus on light fields), Heriot-Watt University, December 2018

*MSc by Research*, Robotics, University of Edinburgh, 2015

*BSc*, Aerospace Engineering, University of Southern California, 2014

## EXPERIENCE

*Naval Research Enterprise Internship Program (NREIP)*

June – August 2013, June – August 2014

Naval Postgraduate School, Monterey, CA

- Worked on embedded, open source systems for UAVs to be used in swarm manoeuvres.

*The Systems Integration Organization (SI Org)*

June 2012 – August 2012

King of Prussia, PA

- Part of the Aerospace and Integration team, uncovered and deciphered MATLAB tools and learned to diagnose satellite issues.

*Vandenberg Air Force Base*

June 2011 – December 2011

Lompoc, CA

- Characterized ground-based sensors for Space Situational Awareness group.
- Began development of a program to make observation abilities apparent to new users.

*Information Sciences Institute (ISI)*

May 2009 – April 2012

Space Engineering Research Center, Marina del Rey

- Was part of the team that helped to create the Caerus portion of the Mayflower-Caerus 3U CubeSat and the Aeneas CubeSat.
- Team lead for LEAPFROG lunar lander avionics group.

## TECHNICAL SKILLS

- Proficient in: C++, light fields, SolidWorks (certified), electronics (including soldering), genetic algorithms, Gaussian processes, microcontrollers, Excel
- Working Knowledge of: ROS, SLAM (PTAM and ORB-SLAM2), XFOIL, composites, MATLAB, Python, ActionScript, MXML, general machine learning, computer vision

## POSTGRADUATE RESEARCH

*MSc Research*

- Built an autonomous powered glider to take atmospheric data for wind farm optimization.
- Utilized Gaussian processes to predict local, small-scale weather patterns.
- Designed to fill in for relatively low resolution satellite and weather station data.

*PhD Research*

- Ongoing light field research for potential scientific applications.
- Utilizing novel data collection and interpolation methods and analyzing potential parameterizations.

## GENERAL INTERESTS

- Avid drone racer and exploratory drone creator/operator, both fixed wing and multirotor.
- Constructed an automated greenhouse indoors using RPI and Arduino.
- Dedicated off-roader, expeditioner, and overlander, be it by Jeep or fat bike.
- I also enjoy riding horses/polo, music (pianist for 20 years), SCUBA certified, AutoX, and more.