# David S. Hershey

dshersh@stanford.edu | 773 Woodchester Drive, Bloomfield Hills, MI 48304 | cell: +1.248.561.8332

## Education

**M.S.** **Computer Science - Machine Learning**
2017 *Stanford University*
GPA **3.7**

**B.S.E** **Aerospace Engineering**
**Computer Science Minor**
2015 *University of Michigan*
GPA **3.9**

## Work Experience

### Software Engineering Intern 05 2015 - 08 2015

*Boeing Defense Systems, St. Louis, MO*

- Developed software for operational flight trainer of a US Navy aircraft
- Applied Agile software development principles to weekly work.
- Wrote C++ and Python software to optimize the development of tests for the simulator
- Conducted and analyzed tests to verify simulator correctness
- Wrote extensive documentation describing the testing process
- **Obtained US Secret Security Clearence**

**Contact: Kurt.C.Rothhaar@boeing.com**

### Engineering Intern 06 2014 - 08 2014

*NASA Ames Research Center, Mountain View, CA*

- Analyzed NAS-wide simulations including UAS missions using MATLAB
- Developed software to interface with SQL databases and analyze simulation data
- Developed GUI to quickly perform data visualization
- Analyzed detect and avoid algorithms for UAS

**Contact: Douglas.R.Isaacson@nasa.gov**

### Research Assistant 01 2012 - 10 2014

*A2SYS Lab, Ann Arbor, Michigan*

- Developed and analyzed geo-fencing algorithm for UAS
- Developed C++ simulation to test navigation algorithms
- Wrote embedded C software involving PID control, servo PWM output, and serial interfaces
- Conducted hardware-in-loop testing on software
- Interfaced Linux flight computer with new sensors
- Worked with a student project team to install a flight management system into their UAS
- Conducted and lead flight testing on multiple vehicles
- Analyzed test data with MATLAB to determine various stability and control derivatives

## Leadership

### Student Government 04 2014 - 05 2015

*Vice President and Co-Founder*

- Founded Engineering Student Government
- Elected Vice President by popular student vote
- Lead and organized the largest student organizations on campus
- Chaired academic affairs committee

### Sigma Gamma Tau Board 09 2013 - 05 2015

*President, Internal VP, Academic Chair, Web Team*

- President of the University of Michigan's Aerospace Honors Society.
- Oversaw board of students that planned events, service, and tutoring
- Organized tutorials, social events, and seminars
- Organized, planed, scheduled and conducted weekly meetings

## Project Experience

**Aerospace 481:** *Senior Design*

- Designed 463 passenger long range commercial jet
- Performed multidisciplinary design optimization in MATLAB
- Presented Preliminary and Critical Design Reviews
- Chosen by team as Team Lead

**CS 231n:** *Deep Learning for Computer Vision*

- Developed deep convolutional neural network for classifying photos into city of origin
- Tuned, trained, and tested CNN in caffe framework

## Computer Skills

**OS:** Linux (embedded and desktop)
Windows
**Languages:** C++, C, MATLAB, Python, SQL
**Software:** QT, GIT, Caffe, AWS

## Awards

**NASA Aeronautics Scholar:** *2013-2015*

- Prestigious scholarship awarded to 20 students nationwide
- Awarded for demonstrating passion and vision in the field of Aeronautical Engineering

**Pratt and Whitney Scholarship:** *2013-2015*

- Awarded for outstanding academic achievement