**Zachary Hudson**

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**Experiences**

**Garmin AT: Electrical Design Engineering Intern** Summer 2013

* Defined, designed, laid out and built a board to perform automated testing with a precision current source.
* Circuit design and synthesis using LT Spice including loss analysis for power supply
* Circuit design and layout in both PADS & CADStar
* Initiated cross discipline team to quickly address software issue to keep production-test equipment functional
* J-STD-001 and IPC-A-610 solder school trained

**Garmin AT: Process Engineering Intern** Summer 2012

* Worked alongside engineers to move new designs into mass production. Assisted production team as needed and maintenance of SMT machinery
* Worked independently on projects with both engineering and production staff.

**Northwest Unmanned Aerial Vehicles** Summer 2010

* Support the electrical engineering team with circuit design, layout and prototyping.
* Ran environmental tests. Worked to improve test setup and implement new designs.

**Intel Engineering Challenge**  Spring 2010

* First Place trophy— Designed, built and demonstrated a 17-foot, 6-foot-diameter blimp with radio control.

**FIRST Robotics** 2006–2012 Seasons

* Founded a FIRST Tech Challenge (FTC) Team and participated six years in various capacities including team captain and lead programmer. Received Robotics Varsity Letter.
* Attended the 2009 FIRST Robotics World Championship in Atlanta, GA

**Academics**

**Case Western Reserve University,** Cleveland Ohio August 2012–Present

Electrical Engineering Major

GPA: 3.64 | Dean’s Honor List

Research in Quadrotor control and applications

**Carnegie Mellon,** Pittsburgh, Pennsylvania Summer 2011

APEA accelerated college course program: 22 units

**Amity High School,** Amity, Oregon September 2008–June 2012

GPA: 4.0 unweighted | Rank: 1 of 78 | Honor Roll every semester

Class President—Three years: Leadership Class

Senior Project—designed, built, flew AtmelARM based gyro/accel stabilized quad-copter

**Technical Expertise**

**Hardware:** Microcontrollers, FPGAs, ADCs, DAC, DC-DC converters

**Languages:** Java, C/C++, Assembly, Verilog

**Programs:** Schematic and PCB design (PADS, CADSTAR, Multisim, Altium), Active-HDL, Code Composer, Eclipse

**Activities**

**Boy Scouts of America**

Eagle Scout. Involved in the Boy Scouts for nine years with seven summer “50 milers”.

**ID Tech Programming Academy** July 2009

Two-week intensive course in Java on the Stanford University campus. Culminated in project presentation to NASA Ames research team.

**Hobbies**

Outdoor activities hiking/backpacking and skiing. Technology research in processors, robotics, software and gadgets. Photography.