

IAN C. HARTWIG

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EDUCATION:	DEGREE	SKILLS
May 2016 (expected)	Carnegie Mellon University M.S. Electrical & Computer Engineering GPA pending first semester grades.	<ul style="list-style-type: none">▪ CAD – Cadence, Eagle, KiCAD, AutoCAD▪ System Simulation – Spice, System Verilog▪ EE Lab Equipment – incl. USB certification, Audio Precision analyzers, SMT soldering▪ Programming – C, Python, Javascript, Java▪ Web – Markdown, HTML, CSS, PHP, SQL▪ Basic Machining – Mill, Lathe, Laser Cutting
May 2015	Carnegie Mellon University B.S. Electrical & Computer Engineering	
Aug. 2011	GPA: 3.81/4.0	

EXPERIENCE:	INDUSTRY	ACADEMIC
Aug. 2015	Hardware Engineering Intern Pure Storage, Mountain View, CA <i>Developed tools and tests to validate design of close-to-market product. Significant SMD rework and measurement coupled with advanced embedded system development.</i>	Robotics Club Officer Student Life, CMU <i>Oversee and drive campus hackerspace.</i>
May. 2015		Embedded System Design (18-549) TA ECE Department, CMU <i>Mentored several capstone design projects. Created coursework in HW design and Eagle.</i>
Aug. 2014	Hardware Engineering Intern iOS Device Accessories, Apple Inc. <i>Drove PCB level integration for several close-to-market products. Worked closely with mechanical, layout, RF, and SI engineers to implement and verify circuits. Sparked test equipment automation collaboration in Python to save engineering time.</i>	Activities Board (AB) Coffeehouse Student Life, CMU <i>Mid-sized (\$2-10k) concert logistics.</i>
Jan. 2014		Intro. Computer Systems (15-213) TA CS Department, CMU <i>Lead C & systems programming recitations for 30 students. Developed exams and held office hours for curious, struggling, or stuck students.</i>
Aug. 2013	Software Engineering Intern Google, Cambridge, MA <i>Built ISP routing preferences interface for Google's content distribution network (CDN). C++ / Python servers with HTML / AngularJS UI. Committed fixes to Angular at Google.</i>	AB Tech Executive Board Student Life, CMU <i>Live audio engineer and electrician for student-run entertainment productions company.</i>
May 2013	peering.google.com	

PROJECTS:	HOBBY	ACADEMIC
	Ace Monster Toys RFID Entry <i>Extended RFID locks at hackerspace in Oakland, CA. Custom microcontroller HW and SW with power relays and USB data.</i> github.com/ihartwig/amtdoor2	Children's Museum "Ant Farm" Systems Engineering (16-850) Projects <i>Light-animated path building game for young children. Embedded hardware network reacted to state from magnetic footprints.</i> upverter.com/ihartwig/4baecc0e3bcd3e67
	Robotic Buggy <i>Building a self-guiding, gravity-powered vehicle with the CMU Robotics Club. Embedded SW and (experimental) radio HW.</i> github.com/CMU-Robotics-Club/RoboBuggy upverter.com/ihartwig/73003c63baaefdd7	Monkey Bot Mechatronic Design (18-578) Projects <i>Capstone design project. Electromechanical design of window cleaning robot.</i> trevordecker.github.io/ CMU Mechatronics 2015 TeamB
	Assassins SMS Gateway <i>Led small group to develop SMS interface and admin panel for assassins game using the Tropo API and Django python framework.</i> github.com/ihartwig/camassassins	Gravel Kernel Embedded Systems (18-349) Projects <i>Wrote a real time multi-process kernel on a basic ARM platform (Gumstix) with 2 peers.</i>