

## Matthew Keeter

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<b>RESEARCH EXPERIENCE</b>	<i>Research Assistant</i> , Cambridge MA Working at MIT's Center for Bits and Atoms on a wide variety of projects. Work has included writing computation geometry engines and CAD software, designing and characterizing low-cost capacitive sensors, and testing instrumented propellor arrays in the wind tunnel.	Fall 2011 - Present
	<i>Jackson Adders Research Project</i> , Claremont CA Lead a team investigating Jackson's proposed adder optimization for high-speed computer arithmetic. Compared a variety of Jackson-style architectures against synthesized designs. First author on paper accepted to the Asilomar Conference on Signals, Systems, and Computers.	Fall 2010 - Spring 2011
	<i>REU at Johns Hopkins</i> , Baltimore MD Researched at a neuro-engineering lab, focusing on adaptive EEG decoding for brain-computer interfaces. Received award for best presentation at the end of the program.	Summer 2009
<b>ENGINEERING PROJECTS</b>	<i>Internship at MicroStrain</i> , Burlington VT Developed firmware for ultra low-power wireless sensor networks. Interfaced with 2.4 GHz IEEE 802.15.4 radio, low-power LCD display, and a variety of sensors.	Summer 2011
	<i>Project for DYNAR</i> , Claremont CA Implementing autonomous cooperative searching in a swarm of small submarines. Focusing on developing an algorithm, then testing it in a physical tank with actual subs. First author on a paper accepted to the American Controls Conference.	Fall 2010 - Spring 2011
	<i>Project for National Optical Astronomy Observatory</i> , Claremont CA Designed a system for telescopes to improve image acquisition. Implemented firmware on an FPGA to sample, filter, and output pixels from a CCD.	Spring 2010
<b>RELEVANT SKILLS</b>	<i>Languages:</i> C, C++, Python, Verilog, shell scripting, L <sup>A</sup> T <sub>E</sub> X <i>Software packages:</i> MATLAB, SolidWorks, Xilinx and Altera FPGA toolchains <i>Other:</i> Prototyping & SMT soldering, PCB design, Linux, machining & fabrication	
<b>RELEVANT COURSES</b>	Algorithms, Underactuated Robotics; How to Make (Almost) Anything; Robotics & Vision; Microprocessor-based Systems; Information & Communication Theory; Data Structures & Program Development; CMOS VLSI; Advanced Systems Engineering (including control theory)	
<b>EDUCATION</b>	<i>Bachelor of Science</i> , Engineering (completed Spring 2011) Harvey Mudd College (HMC), Claremont CA	GPA: 3.93/4
	<i>Master of Science</i> , Media Arts and Sciences (expected Spring 2013) MIT, Cambridge MA	GPA: 5.0/5
<b>HONORS and AWARDS</b>	Hertz Fellowship Finalist Goldwater Scholar	NSF Fellowship Honorable Mention Former President of HMC's Tau Beta Pi chapter