

**TERM ADDRESS**

253 Commonwealth Ave  
 Boston, MA 02116  
 Tel: 310 528.7969

**Mark M. Tobenkin**

MMT@MIT.EDU

**HOME ADDRESS**

1080 N. Amalfi, Dr.  
 Pacific Palisades, CA 90272  
 Tel: 310.459.8734

**OBJECTIVE**

A summer internship solving controls, estimation and DSP problems through simulation and digital circuit design.

**EDUCATION****Massachusetts Institute of Technology****Cambridge, MA**

Candidate for Ph.D. degree in Systems, Communication, Control and Signal Processing, beginning Fall 2009.

**Massachusetts Institute of Technology****Cambridge, MA**

Bachelor of Science in Computer Science and Master's of Engineering in Electrical Engineering and Computer Science, February 2009. Cumulative Undergraduate GPA: 4.3/5.0 Cumulative Graduate GPA: 5.0/5.0

Courses include: Under-actuated Robotics, Identification, Estimation and Learning, Dynamic Systems and Control, Linear Algebra and Functional Analysis for Signals and Systems, Introductory Digital Systems Laboratory, Introduction to Algorithms, Artificial Intelligence, Probabilistic Systems Analysis and Theory of Computation.

**EXPERIENCE****Joby Energy****June '09 - August '09**

Implemented attitude estimation algorithms for a small UAV platform. Integrated and field tested control and estimation software on ARM and PC-104 platforms as part of a team of embedded developers.

**Mathematics and Computation Group, MIT CSAIL****September '07 - August '08**

Developed low-latency acoustic tracking algorithms for a novel lecture transcription system. Authored Matlab libraries for probabilistic tracking and designed amplifier PCBs for large aperture microphone arrays.

**MIT EECS Teaching Assistant****September '07 - March '08**

TA for the Structure and Interpretation of Computer Programs (6.001), and Intro EECS II (6.02). Prepared projects and solutions. Provided office hours and weekly tutorials. Received an average student feedback rating of 6.6/7.0.

**Space Time Programming Group, MIT CSAIL****February '06 - January '07**

Designed a mixed signal sensor breakout board and authored firmware for Mica2 Mote sensor networks. Helped implement a functional hardware description language for FPGAs.

**Amazon.com,****June '05 - August '05**

Worked developing a solution for product image zooming. Developed and tested both server and client-side software.

**PAPERS**

*Nonlinear Filtering for Narrow-Band Time Delay Estimation.* Master of Engineering Thesis. MIT EECS, February 2009.

Beal, Bachrach, Vickery, Tobenkin. *Fast Self-Healing Gradients.* ACM Symposium on Applied Computing 2008.

Bachrach, Qumsiyeh, Tobenkin. *Hardware Scripting in Gel.* In IEEE Symposium on Field-Programmable Custom Computing Machines 2008.

**SKILLS**

Matlab, Python, C, Verilog, Scheme, C++, AVR/RISC Assembly, EagleCAD, Java, Objective C, SQL, Ruby, and Javascript.

**INTERESTS AND AWARDS****Scheme Machine****September '06 - December '06**

Developed a Verilog microcoded architecture and compiler for evaluating Scheme on an FPGA, under G. J. Sussman.

**MIT Electronics Research Society**

President '04, Facilities Manager '05, Secretary '06. Helped increase undergraduate membership from a dozen to near-seventy. Gave talks for introductory electronics and micro-controller programming.

**MIT Battlecode Competition****January '07**

Won first place with partner Dany Qumsiyeh in a distributed AI competition with over 300 contestants.