KATHERINE J. FANG

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Education

Massachusetts Institute of Technology — **Cambridge, MA**
Candidate for SB in Electrical Engineering Computer Science 5.0 / 5.0 GPA — *Jun 2012*
Coursework: Multivariable Calculus, Electricity and Magnetism, Intro to Solid State Chemistry, Exploring Animation, Intro to EECS, Differential Equations, Microeconomics, Toy Product Design

Experience

MIT Media Lab — **Cambridge, MA**
Undergraduate Researcher — *Jun – Aug 2009*
- Improved Blossom, a multi-person awareness system, correcting major issues from previous versions such as capacitive touch sensors cross triggering and polarity of power sources. Designed using Eagle and soldered circuit boards; implemented I2C and USART protocols on AVR microcontrollers.

MIT Edgerton Center — **Cambridge, MA**
Undergraduate Researcher — *Sept 2008 – May 2009*
- Assisted in building a remote simulation environment for underwater vehicle at the Edgerton Center with the intention of exciting high school students about technology.
- Responsible for designing parts in Solidworks, machining parts, and assembling Stewart Platform to simulate 6 degrees of movement and headgear to provide visuals as well as control vehicle.

MIT Autonomous Robot Design Competition — **Cambridge, MA**
Team Member — *Jan 2009*
- Built autonomous Lego robot, and enhanced it with modified sensors and motors; programmed it in C. Placed 2nd out of 21 teams in double elimination competition.

Imran Media, Inc. — **Menlo Park, CA**
Intern — *Jun – Aug 2008*
- Developed content management and blog web applications using Ajax, jQuery, PHP, and MySQL so that users can easily contribute to the website's content by submitting videos and articles for front page display and by posting in blogs.

Leadership / Activities

MIT Exploring Animation — **Cambridge, MA**
Undergraduate — *Jan 2009*
- Took an introduction class with MIT Student Art Association. Applied learned concepts in creating two short stop-motion animations in class.

Space Cookies, NASA-Girl Scouts FIRST Robotics — **Moffett Field, CA**
Co-Captain — *2007 – 2008*
- Organized two week-long workshops on basic programming and electronics for robotics. Increased team membership by 25% and cultivated understanding and interest in these topics.
- Demonstrated robots and to ran activities such as simulating using tools in space and tele-operating vehicles with video feed at NASA and Girl Scouts events in order to inspire enthusiasm for technology and to make it more accessible to younger girls and boys.
- Mentored FIRST Lego League team, encouraging underprivileged elementary school students to pursue a future in engineering.

Electronics Lead — *2006 – 2008*
- Rewired steering wheel to make compatible with existing operator interface, improving robots tele-operated driving capabilities.

Member — *2005 – 2008*
- Built working robot for the FIRST robotics competition; won the Rookie All-Star and the Highest Rookie Seed awards in the 2006 Silicon Valley Regional; won the Judge's Award in the 2006 FIRST Championship event.

Skills

- *Computer:* JAVA, C/C++, Python, SQL, PHP, HTML, CSS, Javascript, Ajax, Adobe Photoshop, Flash, and Dreamweaver, Microsoft Excel, Word, and Powerpoint, OpenOffice Writer, Vim, MATLAB, Solidworks, Eagle, LaTeX
- *Machining:* Mill, Lathe, Drill Press, Chop Saw, Shear, Disk and Belt Sanders
- *Languages:* Conversational Chinese and Japanese

Interests

▪ Ice skating ▪ Wushu ▪ Cooking ▪ Creative writing ▪ Woodworking ▪ Dance