

Joy E. Lee
joylee@mit.edu

14518 Holshire Way
Haymarket, VA 20169
Home Phone: (703) 753-4604

410 Memorial Drive
Cambridge, MA 02139
Cell Phone: (703) 483-1662

EDUCATION

Massachusetts Institute of Technology

Cambridge, MA

Candidate for B.S. in Mechanical Engineering

Feb. 2013

Concentration in Bioengineering

- *Selected Coursework:* Numerical Computation for Mechanical Engineers, Introduction to Engineering Systems, Design of Medical Devices and Implants, Materials and Mechanics I & II, Design and Manufacturing I & II
- *Currently Taking:* Precision Machine Design, Management in Engineering

Cumulative GPA: 4.33/5.0

EXPERIENCE

Massachusetts Institute of Technology

Cambridge, MA

MIT d'Arbelloff Laboratory Muscle-Actuated Robotics Research Project

Jun. 2012- Present

- Designed and built prototype apparatus for quantitative analysis of myotube properties
- Cultured murine cells to optimize growth conditions

MIT Sikes Laboratory Protein Engineering Research Project

Jan. 2010- May 2012

- Designed and carried out experiments to detect intracellular peroxide concentrations in *E. coli*
- Optimized expression and activity of fluorescent protein HyPer to streamline high-throughput analysis

Design of Medical Devices and Implants Class Project

Spring 2012

- Team presented with a problem involving Achilles Tendon repair, developed and presented a design to improve surgical repair process

SKILLS

Software: Java, Magellan, MasterCam, MathCad, MATLAB, MetaMorph, SolidWorks, Origin

Languages: Conversational Korean, Basic Spanish

LEADERSHIP/HONORS

Burchard Scholar

Feb. 2012- Dec. 2012

One of 30 selected for "having demonstrated unusual abilities and academic excellence in the humanities, arts, or social sciences"

MIT Orientation Leader

Fall 2010, 2011, 2012

Provided guidance to a group of approximately 15 students to facilitate a smooth transition to college life; mentor after orientation to help them to be successful in college

MIT Cru Athletics Chair

Fall 2011- Present

Organize and manage intramural sports teams

Mechanical Engineering Peer Advisor

Fall 2012

Advise underclassmen about courses and ways to develop their mechanical engineering skills

ACTIVITIES/INTERESTS

News Staff Reporter for The Tech (Fall 2009- Present)

Research Editor, News Writer for the MIT Undergraduate Research Journal (Fall 2010- Present)

Family Liaison Volunteer, Emergency Department at Massachusetts General Hospital (Jul. 2011- Present)

Ice Hockey, Running, Soccer, Piano, Poetry, Reading, Journaling