

EDUCATION

Massachusetts Institute of Technology (MIT)

Cambridge, MA

Candidate for Bachelor of Science degree in Materials Science and Engineering

Expected June 2013

- **Cumulative GPA:** 4.6/5.0
- **Relevant Coursework:** Solid State Chemistry; Fundamentals of Materials; Microstructural Evolution in Materials; Electronic, Optical, and Magnetic Properties in Materials; Materials Processing; Polymer Physics; Mechanical Behavior of Materials; Organic and Biomaterials Chemistry; Polymer Engineering; Organic Chemistry; Biochemistry.

WORK EXPERIENCE

La Farga Group

Barcelona, Spain

Applied Research Intern

May 2011 – August 2011

- Explored chemical solution deposition techniques to grow thin films of piezoelectric materials on textured metallic substrates.
- Characterized the quality and properties of the samples by x-ray diffraction, electron microscopy, atomic force microscopy and profilometry.
- Conducted all work in Spanish.

Institute for Soldier Nanotechnology

Cambridge, MA

Undergraduate Intern

February 2011 – May 2011

- Collaborated on a project to design Rapid Reconstitution Packages for easy drug delivery. These packages store the proper ratios of liquid and drug in a lyophilized, stable form that can be reconstituted upon demand.
- Conducted HPLC with test drugs Lidocaine and tPA to demonstrate higher levels of stability in powdered form, and to test the quality of the drug as reconstituted and released from the package.

Schuh Research Group

Cambridge, MA

Undergraduate Intern

June 2010 – January 2011

- Researched thermodynamically stable nanocrystalline structures of magnesium alloys and their uses.
- Investigated simulations of nanocrystalline behavior; results support an equation conceptualized to mathematically model the expected behavior. Laboratory tests are ongoing.

LEADERSHIP AND ACTIVITIES

3.091 Introduction to Solid State Chemistry

Cambridge, MA

Teaching Assistant (Fall 2011)

- Prepare lessons for, grade, and teach a recitation section of 20 students twice weekly.

MIT Ring Committee

Cambridge, MA

Committee Vice Chair (May 2010 – May 2011)

- Currently working on a four person committee to negotiate with multiple companies to form a new 6-year contract for MIT.
- Led a 10-person committee to design the MIT 2013 class ring. Chaired bi-weekly meetings and supervised all logistics, including managing a budget of \$70,000. Acted as correspondent between MIT and Balfour ring company.
- Coordinated Ring Premiere and Ring Delivery, two large-scale events attended by over 1000 people each, and managed ring distribution logistics.
- The 2013 ring sales broke all existing records including number of people who bought rings, and total number of rings sold.

MIT Varsity Tennis Team

Cambridge, MA

Team Captain (May 2011 – Present)

Most Improved Player '09-'10

- Undefeated season in Spring 2011 earned the team its first national Top-30 ranking in NCAA Division III schools.

Freshman Urban Program (FUP)

Cambridge, MA

Program Coordinator (For Fall 2012)

Upperclassman Counselor (Fall 2010 and 2011); Freshman Participant (Fall 2009)

- FUP is a community service based freshman pre-orientation program that welcomes students to MIT and the Boston area.
- Coordinate all service placements and welcome activities for a group of 50 freshman and 16 upperclassman counselors.

Sigma Kappa Sorority

Cambridge, MA

Class of 2013 Representative (November 2009 – November 2011); Social Chair (November 2010 – November 2011); CPW Chair (December 2009 – December 2010); Continuing Membership Chair (March 2010 – December 2010)

SKILLS

Languages: Advanced Spanish

Programming: Mathematica, Python