

Colleen Loynachan

305 Memorial Drive
Cambridge, MA 02139

Phone: (323) 627-2387
Email: cloynachan@mit.edu

EDUCATION

Massachusetts Institute of Technology (MIT)—Cambridge, MA

Candidate for Bachelor of Science degree in Materials Science and Engineering

June 2014 (expected)

- Relevant coursework: Fundamentals of Materials Science, Materials Laboratory; Cumulative Undergraduate GPA: 4.9/5.0

Marlborough School—Los Angeles, CA

May 2010

Class of 2010 Valedictorian

- Honors: Cum Laude Society inductee, 2009

RELEVANT EXPERIENCE

Department of Chemical and Biomolecular Engineering—Los Angeles, CA

June 2011 – Aug. 2011

Research Assistant at University of California, Los Angeles under the advisement of Jane P. Chang

- Examined thin film electrolyte materials for solid oxide fuel cells.
- Studied yttria-stabilized zirconia thin films deposited by atomic layer deposition and assessed the effect of elemental distribution in complex metal oxides on the ionic conductivity of the electrolytes.
- Technical skills: Analyzed data from Atomic Layer Deposition, X-ray Photoelectron Spectroscopy, and Impedance Spectroscopy; designed an ALD reactor in SolidWorks, modeled crystal structure in CrystalMaker

Children's Hospital Los Angeles—Los Angeles, CA

June 2009 – Aug. 2010

Research Assistant at the Saban Research Institute under the advisement of Henri R. Ford, MD, MHA

- Examined the various proteins that may be involved in inducible nitric oxide synthase regulation in the gut, in order to determine a pathway that may be inhibited to prevent Necrotizing Enterocolitis (NEC).
- Presented results at weekly lab meetings to the principal investigator and graduate student researchers.
- Technical skills: preparing cell cultures, Western Blot (gel electrophoresis, wet and semi-dry transfer), Immunofluorescence staining

LEADERSHIP

MIT Concourse Program Tutor—Cambridge, MA

Sept. 2011—Present

- Assist students on problem sets and conceptual understanding of Multivariable Calculus and Differential Equations.

Social Chair for Maseeh Hall—Cambridge, MA

Jan. 2011—Present

- Coordinate social and community events for 462 students living in the largest undergraduate dorm at MIT.

Orientation Leader—Cambridge, MA

Aug. 2011

- Led a group of ten students through orientation activities and moderated discussions on social and academic issues.

The Ultra Violet—Los Angeles, CA

Aug. 2006 – June 2010

Design Editor of monthly, 20-page student run high school newspaper

- Produced a cohesive appearance across all sections, while exploring innovative designs.

Assistance League of Southern California—Los Angeles, CA

June 2006 – June 2010

Treasurer and Christmas party Coordinator

- Coordinated the annual Christmas party, providing presents for underserved children during the holidays.

EXPERIENCE

Live Nation—Los Angeles, CA

June 2008 – Present

Usher and front desk coordinator for concerts and private events at the Wiltern Theater and Hollywood Palladium

- Managed the front desk: answered the phone, communicated with guests, and coordinated emergency response.

American Apparel—Los Angeles, CA

June 2008 – Aug. 2010

Floor sales associate and cashier

- Provided exceptional customer service to 100+ people per day. Surpassed weekly sales goals, earning promotions.

Zoop Party Photo Albums—Los Angeles, CA

June 2006 – Aug. 2010

Co-founder of entrepreneurial business

- Launched photographic business, documenting children's parties and creating photo albums on the spot.
- Marketed services to families through self-designed website and local press releases.

ACTIVITIES

MIT Women's Lightweight Varsity Crew Team

Sept. 2011 – Present

MIT Sorority: Kappa Alpha Theta, Zeta Mu Chapter

Sept. 2011 – Present

SKILLS AND LAB TECHNIQUES

- Adobe InDesign CS4, Microsoft Word, Western Blot (preparing cell cultures, preparing gel, electrophoresis, wet and semi-dry transfer), Immunofluorescence staining, SolidWorks, Mathematica