# VINATI KAUL

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#### **EDUCATION:**

Massachusetts Institute of Technology

Candidate for B.Sc. in Chemical Engineering; GPA: 4.8/5.0

Proposed Minors in Spanish and Biology

Cambridge, MA June 2014

Relevant Coursework: Chemical Engineering Thermodynamics, Fluid Mechanics, Biochemistry I, Biochemistry Lab, Introduction to Engineering Systems, Differential Equations, *Transport Processes (Fall 2012), Reactor Design (Spring 2013)* 

#### **EXPERIENCE:**

## Saint-Gobain (Northboro R&D Center)

**Bonded Abrasives Intern** 

Northboro, MA

June 2012 - August 2012

Resin Benchmarking for Large Diameter Cutoff Wheels

- Conducted literature search to find new testing methods and parameters for resin testing.
- Designed experiments to survey uncollected thermo-mechanical and microscopic material property data.
- Contributed SOP and analysis in internal report to guide future testing recommendations based on collected data.

## Larson Lab (MIT Engineering Systems Division)

Research Assistant

Cambridge, MA Jan. 2012 – June 2012

Preventative Methodologies in Food-borne Disease Outbreak

- Surveyed data for food-borne disease outbreaks to create network distribution maps.
- Optimized parameters used for food-supply network modeling based on available data.
- · Generated supply chain models with GIS software and suggest modeling procedure improvements.

# Langer Lab (Koch Institute for Integrative Cancer Research)

Research Assistant

Cambridge, MA

Sept. 2010 - Dec. 2011

Biocompatible Materials for Glucose-Responsive Insulin Delivery for Diabetes

- Optimized SOP for synthesis and testing of materials to deliver insulin to diabetic patients.
- Synthesized micro-particles and analyzed relative material performance using ELISA/plate assays.
- Contributed research to 11<sup>th</sup> US-Japan Symposium on Drug Delivery Systems.

#### LEADERSHIP:

# MIT Mirchi (Co-captain/Treasurer)

August 2011 – present

- Choreograph and teach 15-20 Bollywood dancers to perform at a competitive level.
- Oversee publicity, recruiting, and artistic efforts on-campus and at performances.
- Organize local performances, practices, competition pieces, and yearly theme design.

### New House 3 (Social/Residential Exploration Chair)

Sept. 2010 - June 2012

- Organized and budgeted social events for house members.
- Acquired funding from House budget to subsidize events by 40-50%.
- Increased house event attendance from 8-10 people to 20-22 people regularly.

# MIT Women's Initiative (Engineering Outreach Presenter)

January 2012

- Presented different engineering disciplines to over 600 middle and high school girls.
- Designed and conducted a hands-on activity for students to practice engineering concepts.
- Served as a point of contact for girls interested in pursuing STEM subjects in college.

## SKILLS:

Chemistry: NMR, Schlenk line, ELISA, flash chromatography, cell culture.

Computer: MATLAB, Microsoft Office.