

# SANDRA CHEN

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## Education:

### Massachusetts Institute of Technology

June 2012

Cambridge, MA

Candidate for Bachelor of Science in Chemical Engineering

GPA: 4.7/5.0

Relevant Coursework: Differential Equations, Mechanics, Electricity & Magnetism, Thermodynamics, Organic Chemistry

### Melrose High School

June 2008

Melrose, MA

Graduated summa cum laude with GPA 4.79/4.79

Awards/Honors: President's Award for Educational Excellence (2008), Society of Women Engineers, Highest Honors, Boston Chapter (June 2008), Coca-Cola Scholar (May 2008), Elks National Foundation Most Valuable Student, MA (May 2008), AP Scholar with Honor (May 2007), Rotary Youth Leader Award (April 2007)

## Relevant Experiences:

### CombinatoRx, Inc: Drug Discovery

June—August 2009 Cambridge, MA

Chemical Engineering Intern, Engineered a cell migration assay for wound healing using a REIC-6 model; Conducted high-throughput screening of drug combination orders on human keratinocyte cell line HaCat, and 8 colorectal cell lines to discover drug synergies for potential novel drugs. Programmed laboratory robots to maximize the efficiency of the above projects and for large scale production.

### Project ENERGYneering: Bioengineering and Design

February—May 2009 Cambridge, MA

Team Member, Bioengineered *b.braunii* algae to efficiently absorb Carbon dioxide emission and to maximize the secretion of hydrocarbons as a reusable biofuel source via a novel chassis. The pathway has potential for drug delivery and untapped energy resources. Designed a biofuel reactor to efficiently collect and purify components.

### Second Summer Program: Product Development

January 2009 Cambridge, MA

3<sup>rd</sup> Place Winner, Developed in a team the Bicycle Turning Light System, a revolutionary bike signal turning system, that is composed of LED lights on a circuit board in a plexi-glass casing and detachable from the bike. Its use of processing and blinking LED lights in three successive arrows, portability, and need in the marketplace makes it a competitive safety system in the market.

## Relevant Skills:

*Laboratory: Performed cell culture, high-throughput screening, bacterial genetic transformation, protein purification via column chromatography (HIC) and size exclusion chromatography (SEC), DNA restriction analysis, protein electrophoresis, ELISA, PCR, Microarrays, RNAi, gene splicing, northern, southern and western blots*

*Computer: MatLab, Excel, SolidWorks, Adobe Photoshop, Dreamweaver, Flash CS3, Mac/Windows/Linux OS*

*Language: Fluent in Cantonese and Mandarin, Proficient in Spanish*

## Activities and Leadership:

### The Service Leadership Project in Shenzhen, China

August 2009

Project Coordinator, Organized and taught leadership, teaching skills, international relations, technology and entrepreneurship workshops to Chinese high school students to generate their own local environmental service project.

### MIT Career Fair 2009 Executive Committee

May 2009—Present

Publicity Director, Mass Promotion of the MIT Career Week and the Career Fair to 4,000 undergraduates and 6,000 graduates on campus and recruit 280+ companies to participate.

### MIT Alumni Association Student Ambassador Program

September 2008—Present

Club Treasurer/Event Chair, Showcase the opportunities and news at MIT through a students' perspective to 5,000+ alumni, parents, prospective students, and honored guests through tours and welcome receptions. Active volunteer for Tech Reunions, Alumni Leadership Conference, Campaign for Students, and the MIT150 Kickoff.

### Society of Women Engineers (SWE)

September 2008—Present

National Member and Career Development Co-Chair, Coordinate and lead professional events for undergraduates and graduates to connect with engineering leaders in corporate industry and academia.