

Sara R. Comis

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Education

Massachusetts Institute of Technology

Cambridge, MA

Candidate for Bachelors of Engineering in Course 2a (Mechanical Engineering with a concentration in Sustainability) with a minor in Applied International Studies and Energy, 2011 Burchard Scholar
June 2013.

Current GPA: 4.9/5.0

Relevant courses: Ecology: The Earth System, Civil & Environmental Engineering Design I & II, Thermal-Fluids Engineering I, Design and Manufacturing I, Soil Mechanics, Energy Efficiency in Buildings, Dynamics I, Sustainable Energy, Development Lab, Administración de Empresas (Business Administration), Mechanics and Materials II

Research Experience

Undergraduate Research Opportunities, MIT

Cambridge, MA

High Speed Rail vs. Aviation Analysis (Engineering Systems Division)

September 2011-December 2011

Analyzed energy consumption and carbon dioxide emissions in Northeast corridor resulting from aviation as compared to high speed rail to determine future high speed rail impact.

Bar Ilan Institute for Nanotechnology and Advanced Materials (BINA)

Ramat Ilan, Israel

Lab Assistant

June – August 2010

Prepared slurries of carbon nanotubes and activated carbon for use in dye sensitized solar cells and car starters. Funding provided through MIT International Science and Technology Initiative.

Karen May Foundation

Tamaula, Mexico

Project Coordinator

January 2010

Built cisterns for community without running water (increased community storage capacity by 0.5), conducted water surveys, and taught community to sanitize water by using solar UV radiation. Funding provided by a public service grant.

Other Research Experience: D-lab Cambodia: Biogas Assessor and implementer: January 2012, Field Intelligence Laboratory (Mechanical Engineering): February 2011-June 2011; Susan Murcott Research Assistant (Environmental Engineering): January 2011; Sadoway Group (Materials Science and Engineering): January–May 2010 University of Florida: materials science research at the Student Science Training Program: Summer 2008

Work Experience

ExxonMobil Pipeline Company

Houston, TX

Summer Intern

Summer 2011

Collaborated with company specialists to assess pipeline leaks, designed and implemented the relocation of prover connections, assessed risk of pipelines in water crossings, and evaluated risk to company pipelines from others entering corridors and rights of way.

Other Work Experience: Co-op with COGEN Energía España: Spain energy cogeneration (Spring 2012), Summer Intern with ExxonMobil Environmental Services Company (Summer, 2011)

Leadership

Challah for Hunger (CFH), MIT branch founder and President

April 2011-December 2011

- Coordinated usage of MIT's facilities for challah baking
- Raised awareness of genocide in Darfur on campus
- Created a useful product for consumers on campus

McCormick Dinning Chair/ Campus Dinning Committee

Fall 2009-Spring 2011

- Shared students food preferences to dorm chef during monthly meetings
- Voiced concerns of residents in all women's dorm to committee for new dinning plan
- Established weekly specials and regular vegan options for health conscience residents

Roles: Society of Women Engineers (SWE) Region F Conference Long Term Logistics Coordinator (Fall 2011), SWE Executive Secretary (2010), SWE freshman campus relations representative (2009), 4 year high school + 2 years MIT varsity track and field athlete (2005-2011), Resident Associate Adviser (Fall '10-Spring '11), Freshman leadership Program- mentee & mentor (Fall '09 & '10), AYSO/USSF referee (2005-present), McCormick Dish Closet Chair (Fall 2009-Spring 2011)

Skills

Hebrew (intermediate), Spanish (fluent), Excel, java & Vensim proficiency, CAD (KeyCreator, AutoCAD, & SolidWorks)