Lauren Chai

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EDUCATION

Massachusetts Institute of Technology Cambridge, MA

- Candidate for B. S. in Mechanical Engineering Major Related GPA 4.5/5.0 Overall GPA 4.2/5.0 June 2012
- Relevant Coursework(Completed): Dynamics and Controls I&II, Vibrations and Waves, Mechanics and Materials I, Thermo-Fluids Engineering I, Measurements and Instrumentation, Numerical Computation for Mechanical Engineers.

EXPERIENCE

Solar Electric Vehicle Team, MIT Cambridge, MA
Team Member January 2010 –Present

- Primary welder and construction lead for chassis of current prototype car.
- Designed and constructed acceleration pedal of current prototype car.
- Analyzed strength requirements for rear & front suspension attachment tabs. Designed tabs in Solidworks based on results.
- Constructed 3D models rear and front A-arm ends in Solidworks
- Analyzed force balances for an existing design of rear suspension trailing arm.

Undergraduate Practice Opportunities Program, MIT Cambridge, MA
Participant September 2009– Present

- Developed various skills through modules held during the professional development skills week in January, addressing topics such as specifications, different thinking modes and communication.
- Worked closely with a highly diverse team whose members included various undergraduate majors of study and cultures at MIT.

Experimental Study Group, MIT Cambridge, MA
Teaching Assistant – Mechanics I Immersion September 2010 – Present

- Lead weekly problem section where topics are reviewed with students through in class problems.
- Co-teach weekly math review class, where students are supplemental math.

Dream Jamaica(sponsored by Microsoft) Jamaica, West Indies
SAT Math Teacher July - August 2009

- Led targeted SAT Mathematics review for students of varied backgrounds, covering four years of college preparatory coursework into four weeks.
- Developed unique curriculum, drawing on multiple resources.
- Instruction resulted in an average 35% improvement on comprehensive assessments.

Fundamentals of Engineering Design, MIT Cambridge, MA
Team Member February – May 2009

- Constructed Underwater Remotely Operated Vehicle (UROV).
- Co-Designed, built and tested vehicle within specifications and on schedule.
- Created report and presentation detailing design considerations, budget and results from tests on UROV components.
- Vehicle successfully navigated testing site in Charles River.

LEADERSHIP

Gordon Engineering Leadership Program, MIT Cambridge, MA
Student September 2010 - Present

- Develop key leadership skills necessary to successfully lead engineering projects.
- Participate in weekly modules and team-based engineering projects

Assassin's Guild (MIT Live Action Roleplaying Group) Cambridge, MA
Co-Game Master (GM) July – September 2010

- Co-Designed, developed and produced the Fall 2010 Rush Game on an accelerated deadline.
- Outlined meeting agendas, scheduled meeting times and kept track of what was left to be done by fall deadline.
- Addressed player questions and concerns about mechanics and logistics.
- Developed system for efficient and accurate deploy of game setup.
- Successfully produced and ran three runs, totaling twelve hours of in-game time and fifty players.

SKILLS

Computer: Microsoft Office. SolidWorks, Mathematica, Matlab, MathCAD.
Tools: Hand drills, band saws, press drills, soldering, TIG welding, milling machines and lathes.
Other Extracurriculars/Interests: Assassin's Guild;American Jiu-Jistu; Bouldering.