

Michelle S. Chang

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EDUCATION

S.B. Mechanical and Ocean Engineering expected 2011
Massachusetts Institute of Technology, Cambridge, MA [GPA – 4.1/5.0]
Relevant Courses: Differential Equations, Dynamics and Control I, Hydrodynamics, Mechanics and
Materials I, Mechanics of Structures, Measurement and Instrumentation, Thermal-Fluids Engineering I
Current Courses: Dynamics and Control II, Design of Electromechanical Robotic Systems

High School graduated 2007
Ramona Convent Secondary School, Alhambra, CA [GPA – 4.5/4.0]

RESEARCH & WORK EXPERIENCE

Intern, Robotics; Mobility and Manipulation (under J.A.Townsend) Summer 2009
Jet Propulsion Laboratory, Pasadena, CA, through the Space Grant program

- Wrote encoder calibration code (Python) and machined calibration fixtures for the ATHLETE rover
- provided assembly support in the ATHLETE high bay

Greer Group (with Prof. J.R.Greer) Summer 2008
Caltech, Pasadena, CA, through a Summer Undergraduate Research Fellowship (SURF)

- Used Agilent G200 nanoindentation machine to compress nanopillars
- Analyzed temperature data relating to nanocompressions of differing materials

Experimental Hydrodynamics Laboratory (with Prof. A.H.Techet) Jan-May 2008
MIT, Cambridge, MA, through the Undergraduate Research Opportunities Program

- Ran and gathered data for experiment on free surface impact of spheres
- Calculated contact angles of water on spheres with differing surface treatments

Center for Materials Research in Archaeology and Ethnology (with Prof. H.Lechtman)
MIT, Cambridge, MA, through the Undergraduate Research Opportunities Program
Feb-May 2008

- Made thin sections of samples taken from an ancient furnace in the Pulacayo region of Bolivia
- Analyzed sample thin sections with a petrographic microscope

Summer Science Program Summer 2006
New Mexico Tech, Socorro, NM

- Calculated the orbital elements of the asteroid 8 Flora by the Laplacian and Gaussian methods
- Imaged asteroids using CCD imaging and sheet-film astrophotography

ACTIVITIES & HONORS

MIT ROV (Remotely Operated Vehicle) Team Fall 2007-present
The team builds an ROV, an underwater robot, to compete in the annual MATE ROV competition.

13seas Ocean Engineering Student Association Spring 2008-present
Secretary 2008-2009

Kappa Alpha Theta Fraternity Fall 2007-present
Deputy Philanthropy Chairman 2008, Risk Management Chairman 2009

FIRST Robotics Competition 2003-2007
Team Captain 2007

Northrup Grumman Engineering Scholarship, 2007
Raytheon/FIRST Robotics Scholarship, 2007

ADDITIONAL SKILLS

I am proficient in the use of Microsoft Office/OpenOffice, am familiar with MATLAB, SolidWorks, LabVIEW and the Python, and have basic machine shop skills and experience with electronics.