

# MARY XUE WANG

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## EDUCATION

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Massachusetts Institute of Technology  
Candidate for Bachelors of Science and Engineering June 2012  
Cambridge, MA

Catalina Foothills High School  
Graduated May 2008  
GPA: 3.99 un-weighted  
Tucson, AZ

## WORK EXPERIENCE

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**Materials Science and Engineering UROP**  
*MIT, Dr. Caroline A. Ross, Toyota Professor of Materials Science and Engineering*  
Investigation of magnetic properties of tungsten-nickel alloy nanocrystalline thin films to find correlations between microstructure, composition, and magnetism for applications in data storage.  
Cambridge, MA  
Jan 09-present

**University of Arizona Department of Chemistry Intern**  
*University of Arizona, Dr. Zhiping Zheng, Associate Professor, Inorganic Chemistry*  
Synthesized and characterized novel organometallic rhenium-selenium cluster compounds in an effort to investigate the formation of novel cluster arrays through photocyclodimerization. Work won 2<sup>nd</sup> place team at 2008 Intel International Science and Engineering Fair.  
Tucson, AZ  
Sept 06-Aug 08

**KEYS Summer Intern**  
*University of Arizona, Dr. Emmanuelle Meuillet, Assistant Professor, Cancer Center*  
Investigated effectiveness of novel Akt-inhibiting anti-cancer drugs in inducing apoptosis through selective binding to the PH domain of Akt in HaCat and HaCat II-4 cell lines.  
Tucson, AZ  
May-July 08

**High School Summer Science Research Program (HSSSRP) Intern**  
*Baylor University, Dr. Kevin Pinney, Professor, Organic Chemistry and Biochemistry*  
Investigated effectiveness of novel tubulin-polymerization inhibiting vascular disrupting agents as anti-cancer drugs by characterizing binding properties through isothermal titration calorimetry.  
Waco, TX  
May-July 07

## LEADERSHIP

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**Undergraduate Association Committee on Sustainability**  
*MIT*  
Initiate and coordinate greening activities and programs on campus with MIT administration and outside organizations. Organized IAP class on environmentally friendly lighting design and policy.  
Cambridge, MA  
Sept 08- present

**Treasurer, Sustainability@MIT**  
*MIT*  
Keep track of club expenditures, apply for grants for event funding.  
Cambridge, MA  
Sept 08- present

**Team Captain, Catalina Foothills Science Olympiad**  
*Catalina Foothills High School*  
Formed teams and assigned events, organized and directed meetings and study sessions, coordinated and planned state trip to Phoenix, AZ and nationals trip to Washington DC. Maintained communication with club members and fellow officers, worked closely with school authorities to authorize and fund trips.  
Tucson, AZ  
Aug 07-May 08

**President and Officer, SMILE Community Service Club**  
*Catalina Foothills High School*  
Worked closely with other officers and various organizations such as the Southern Arizona Aids Foundation to organize opportunities for members to volunteer at various community service events, directed monthly meetings.  
Tucson, AZ  
Aug 06-May 08

## SKILLS

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- English, Mandarin Chinese, Spanish, introductory French
- Trained and experienced in biological and chemical lab procedures, experienced with analytical techniques: transmission electron microscopy, isothermal titration calorimetry, absorbance assays, mass spectroscopy, and x-ray crystallography, vibrating magnetometer spectroscopy, trained on and have obtained driver's license for NMR.