

Jennifer R. Fox

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Primary Research Interests

Renewable energy technology, sustainable development, system integration and automation.

Education

University of California, Los Angeles, Los Angeles, CA

M.S., Mechanical Engineering, June 2013

GPA: 3.5

Selected Honors and Distinctions: Successfully proposed and completed an independent research project to design and build a soil moisture sensor irrigation control system using a Raspberry Pi computer. Chosen to present project at MWD's Spring Green Exposition; selected as one of four finalists. Project featured on UCLA's Mechanical Engineering website and E-bulletin.

Occidental College, Los Angeles, CA

B.A., Physics, May 2011

GPA: 3.8

Selected Honors and Distinctions: Summa Cum Laude, Phi Beta Kappa Honors Society, Sigma Pi Sigma Physics Honors Society, Mortar Board Honors Society (Community Service chair, 2010-2011).

Relevant Work Experience

Intel / Maker Education Initiative

Tech Disruptor (November 2013 – January 2014)

Tasks include conceptualizing and building objects from salvaged e-waste; facilitating public "maker" engagement; educating community members about e-waste, electronics, engineering, and STEAM education.

The ADEPT Group, Inc.

Project Engineer (February 2013 – February 2014)

Technical and analytical engineering support for an environmental engineering consulting firm. Responsibilities include technical consulting for commercial solar energy projects; heat-balance, fluid flow, and electrical systems analysis for a geothermal power plant; co-leading a renewable energy course at UCLA; small-scale electrical engineering; small-scale R&D; generation of future projects and clients.

UCLA Physics Department

Teacher's Assistant, Physics 4AL (Sept 2012 – Dec 2012)

Primary instructor for two sections of Physics 4AL. Gave lectures on mathematics and physics; answered technical and procedural questions in person and via e-mail; reviewed and graded 40+ weekly lab reports.

Metropolitan Water District Solar Cup Program

College Staff, Head Student Coordinator (Sept 2008 – May 2012)

Instructor and organizer of Solar Cup workshops teaching high school students the basics of designing and building a solar powered boat; technical boat inspector during Solar Cup competition and at final race.

Occidental College Physics Department

Student Researcher (May – Aug 2009, 2010, & 2011)

Successfully constructed and calibrated a prototype detector for the DRIFT dark matter detection collaboration. Spearheaded a student team to engineer six full-sized detectors based on this prototype.

Published Papers

Spin-Dependent Limits from the DRIFT-IIId Directional Dark Matter Detector

Published in the Astroparticle Physics journal, November 2011.

The DRIFT Dark Matter Experiment

Published in the Cambridge University Press (EAS Publication Series), January 2012.

Programming Languages

Intermediate proficiency: R, Python

Basic proficiency: C++, HTML, MATLAB, COMSOL, MODFLOW