

JENNIFER WANG

jennifer_wang@berkeley.edu
http://best.berkeley.edu/~jen

SUMMARY OF QUALIFICATIONS

- Excellent research and technical skills, as exemplified by the development and refinement of over 10 products and services in the fields of engineering and education
- Established ability to manage projects, collaborate with and lead interdisciplinary teams, and communicate clearly and concisely orally and in writing
- 10 years of experience teaching, tutoring, and mentoring students from pre-K to adults
- Demonstrated passion to expose the public to the power of STEM

EDUCATION

University of California, Berkeley

Ph.D. Engineering, Science, & Math Education :: May 2014

M.S. Mechanical Engineering, Emphasis in Design :: December 2011

B.S. Electrical Engineering & Computer Sciences (Honors), Music Minor :: May 2009

Relevant courses:

Designing Educational Technologies

Education Issues & Problem Solving in
Engineering Education

Gender, Mathematics, & Science

Qualitative Methods

Quantitative Methods

User Experience Research

User Interface Design

Tangible User Interfaces

New Product Development

Body-Conscious Design

Language of Drawing

Language of Sculpture

PROFESSIONAL EXPERIENCE

Ingenuity Researcher & Educator :: Lawrence Hall of Science :: June 2010 – present

- Implement original maker educational programming in engineering design, leading interdisciplinary teams of engineering students, partner industry engineers, and educators to design, develop, implement, and refine programs
- Conduct evaluation and refine engineering exhibits and programs via observations, interviews, and surveys
- Develop strategy for facilitation, informational labels, and hand-outs on exhibit learning content
- Guide visitors of all ages in hands-on learning
- Train teen volunteers and staff members facilitating exhibits and engineering education programs
- Organize and manage teen volunteer and internship programs with other staff
- Write and present academic work, including grant proposals and academic papers

Pattern-Annotated Course Tool Researcher :: UC Berkeley :: June 2009 – May 2010

- Explored various methods to engage an interdisciplinary community in computer science education
- Developed a Drupal-based website for collaboration and support on curriculum design through pedagogical patterns

Mobile Learning Researcher :: UC Berkeley :: January – May 2009

- Designed and created prototypes for an interactive map-based mobile device for use in education
- Studied various mobile platforms and developed Java code for the Android phone application
- Conducted user studies with the latest prototype

RELEVANT EXPERIENCE

Technical Intern :: Lockheed Martin :: San Jose, CA :: June – August 2008

- Created data structure and algorithm for geolocation based on a product's connection to cell towers (US Patent Number 8,040,275)

Project & team experience

- *Human Power Generation* :: 2013 :: Researched and developed content for energy campaign to increase usability and access of energy harnessing fitness equipment
- *Mookies* :: 2011 :: Designed and developed Mookies, tangible objects that record and play sounds for users to explore sonic properties of everyday objects
- *Race Across the Pacific* :: 2011 :: Prototyped an embodied learning interaction (riding a stationary bicycle) for visitors to experience the distance traveled by oceanic predators
- *Green Challenge* :: 2010 :: Developed and refined an educational sorting game for Waste Management to teach children appropriate recycling practices based on user studies
- *Brightstorm* :: 2010 :: Conducted user experience research via surveys, observations, and interviews for an online tutoring website, Brightstorm
- *MySchool* :: 2010 :: Pedagogically connected mathematics with music for a music-composing mobile app game; conducted interviews and user studies with children
- *myFermi* :: 2009 :: Developed and tested an app using social collaboration and data collection on mobile devices for children to collaboratively solve Fermi science problems

Teaching experience

- *Computer science* :: UC Berkeley :: 2009 :: Taught and led labs for undergraduate students in Introduction to Computer Science course
- *English* :: 2003 :: Developed curriculum and taught middle school students in Taiwan
- *Math, physics, chemistry, English* :: 2004 – 2009, 2013 :: Tutored high school and college students, including a program for first-generation college-bound students
- *Math, reading, writing* :: Emerson Elementary :: 2005 – 2011 :: Guided students and assisted teachers in predominantly minority afterschool program
- *Science* :: UC Berkeley Compass :: 2013 :: Developed curriculum and taught physical sciences to incoming college students, especially those from underrepresented groups

Service & outreach experience

- Supervised 7 undergraduate researchers :: 2011 – 2013
- Initiated and executed award-winning outreach program for families at the Maker Faire for 4 years, recruiting, organizing, and managing 15-20 volunteers each year :: 2010 – 2013
- Planned and implemented events for the Berkeley Institute of Design Lab at Cal Day, the UC Berkeley Open House :: 2010 – 2012
- Organized Society of Women Engineers' "Evening with Industry" banquet event for over 150 college students and industry professionals :: 2007

TECHNICAL SKILLS

Programming languages: Python, Java, C/C++, Processing, Arduino, HTML/CSS, MATLAB, Scatch, Applinventor

Software: Photoshop, Illustrator, InDesign, Word, Excel, PowerPoint, SolidWorks, Tableau

Machine shop: lathes, milling machines, drill presses, belt sanders, band saws, chop saws

LANGUAGES

Fluent in **Mandarin Chinese**

Conversational in **Spanish**, including study abroad in Córdoba, Spain during Spring 2008

INTERESTS

Musician in Sari Raras, an Indonesian gamelan ensemble

Avid cook, maintaining a personal food blog

Hobby artist, working in drawing, painting, sculpture, sewing, and other crafts