

# Xiying Wang

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## Education

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### **Ph.D. student in Information Science, Cornell University | 08/2011-Present**

Advisor: Susan R. Fussell

3.8 Cumulative GPA

Core Courses: Qualitative Research Methods, Learning from Web Data, Advanced Human-Computer Interaction, Analytic of Social System, Computer Mediated Communication (CMC), Social Statistics

### **M.S. in Human-Computer Interaction / Design, Indiana University Bloomington | 09/2009-05/2011**

Advisor: Eli Blevis

3.95 Cumulative GPA

Core Courses: Foundation of Human-Computer Interaction, Interaction Design Practice, HCI Methods and Evaluations, Experience Design, HCI Design Theory, Meaning and Forms of Interaction Design, Graphic Design

### **B.E. in Software Engineering, Sun Yat-sen University | 09/2005-06/2009**

Best Graduated student of 2009, Best Capstone paper of 2009

3.9 Cumulative GPA

Ranking: 1/68

## Research Experience

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### **EnergyHome: A Mobile Application to Motivate Sustainable Behavior | 05/2013-Present**

[Cornell University, Ithaca, NY, USA](#)

My current research focuses on mobile design, persuasive technology, user experience, and sustainable behavior change.

Advised by my advisor Susan R. Fussell, I designed, developed, deployed, and evaluated a mobile application called EnergyHome, to understand what design features engage roommates/families in saving energy and the reasons.

### **EnergySense: A Mobile Application to Regulate Energy Use | 09/2015-Present**

[Cornell University, Ithaca, NY, USA](#)

Advised by my advisor Susan R. Fussell, I designed, developed, and deployed a mobile application with three Cornell students.

This application senses sleeping status and a user's current location. It automatically controls lighting based on sleeping status or the user's current location. I am currently conducting a field study to understand the user experience of this application.

### **Energy Management and Conflicts of Housemates | 09/2015-Present**

Cornell University, Ithaca, NY, USA

Advised by my advisor Susan R. Fussell, I am doing user study to understand how housemates or roommates use energy at home. In particular, I am interested in understanding the moments of conflicts in energy use.

### **User Experiences of Energy Use in Hotels | 01/2013-Present**

Cornell University, Ithaca, NY, USA

Advised by my advisor Susan R. Fussell, I was investigating everyday user experiences of energy use in hotels using interviews and diary studies, and exploring design opportunities for motivating energy-saving behavior in hotels. The research abstract is published in MobileHCI'14 and presented in Toronto. Full paper is submitted to INTERACT'15 (currently under review).

### **SafeSense: A Wearable Armband for Field Workers | 06/2014-08/2014**

IBM, Yorktown Heights, NY, USA

This research explores how wearable devices encourage behavior change. Advised by my mentor Justin Weisz, I was conducting user studies to understand workers' behaviors of health and safety at work, designing and building a wearable armband, and evaluating the device (surveys, interviews). The research paper is submitted to INTERACT'15 (currently under review).

### **User Experiences of Energy Use in Offices | 09/2012-12/2012**

Ericsson, Inc., CA, USA

This research attempts to understand how connectivity motivates sustainable energy behaviors in office environments. I was responsible for designing a research agenda and protocols, recruiting participants, conducting interviews, and analyzing interview data.

### **Food safety in Guangzhou, China | 09/2010-05/2011**

Indiana University Bloomington, USA

This is my master's capstone project. My research activities include conducting UX research (cultural probes, ethnographic observation, personal narratives) to explore how people and food relate, and how food safety affects people's daily lives; and developing an interaction design called iFoodCard to support Guangzhou citizens' daily choices of food.

### **Cross-Culture Dream Kitchen | 08/2010-05/2011**

Indiana University Bloomington, USA

Advised by my professor and mentor Eli Blevis, I'm researching the domains of food, kitchen, sustainability and human-computer interaction. The research project aims at understanding how food and kitchen connect people in different cultures, finding new implications for kitchen design, and writing a paper called "Cross-Culture Dream Kitchen".

### **musicWALK-Tunes from your walking experience | 10/2009-10/2010**

Indiana University Bloomington, USA

The project is purposed to understand people's motivations of walking and walking behaviors, and to design with the intention of evoking people's desire of walking. Music is used as an incentive to encourage people to walk, and an iPhone application called musicWALK is designed. I presented the project paper in the 7<sup>th</sup> International Conference on Design and Emotion in Chicago on October 6<sup>th</sup>, 2010.

### **Hierarchy fisheye menu design and realization based on DOI | 09/2008-05/2009**

Sun Yat-sen University, China

The research project is purposed to use fish eyes as a metaphor to develop a menu based on Degree of Interest (DOI), better support long-list menu reading, and improve the current fisheye menu designed by Ben Bederson. I developed a menu called hierarchy fisheye menu. The project paper is published in the in the 5<sup>th</sup> Joint Conference on Harmonious Human Machine Environment of China.

### **Tri-Sun Smart Home | 09/2008**

Apple Laboratory, SYSU, China

This research project aims at understanding the environment of Tri-Sun (Tri-Sun Electronics Limited.) smart home and designing a virtual map for the smart home sample. Advised by my supervisor and mentor Jianmin Wang, I was responsible for analyzing the environments of Tri-Sun smart home by doing ethnography research and field study.

### **ITV (Interactive Television) Specifications | 12/2007-06/2009**

Digital Home Research and Supporting Centre of Guangdong Province, China

The project aims at writing usability specifications for Guangdong local electronics. I was responsible for researching ISO specifications, usability specifications and interactive TV, as well as writing the Specification of Usability Testing and Usability Evaluation for ITV.

### **Usability Study | 09/2007-12/2007**

Usability Laboratory, SYSU, China

Advised by my supervisor and mentor Jianmin Wang, I was responsible for collecting quantitative data and qualitative data while observing people interact with software prototypes, analyzing the data, and providing suggestions.

## Publications

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**Wang, X.**, & Fussell, S. R. (2015). Designing Mobile Technology for Motivating Sustainable Behavior Change. iConference ICT4S Workshop.

**Wang, X.**, & Fussell, S. R. (2014). Mobile Designs to Support User Experiences of Energy Conservation in Hotels. In Proc. MobileHCI, 555-560.

**Wang, X.**, & Cosley, D. (2014). TweetDrops: a visualization to foster awareness and collective learning of sustainability. In Proc. CSCW. ACM, New York, NY, USA, 33-36.

Cheong, C., Halabi, A., Khanduja, V., & **Wang, X.** (2010). musicWALK-Tunes from your walking experience. In Proc. Design & Emotion.

Wang, J., **Wang, X.**, & Zhang, Z. (2009). Hierarchy fisheye menu design and realization based on DOI. In Proc. Harmonious Human Machine Environment, Xi'an, China.

## Working Experience

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### **Web Designer | 02/2016-Present**

Computer-Human Interaction Conference, SIGCHI, ACM

- Designed and developed CHI (Computer-Human Interaction) 2017 website: <https://chi2017.acm.org/>
- Currently maintaining CHI 2017 website
- Currently designing and modifying CHI mini-web app: <https://chi2017.acm.org/program/>

### **Graduate Assistant | 08/2011-Present**

Cornell University, NY, USA

- Head teaching assistant for Human-Computer Interaction, Fall 2016, Fall 2015
- Head teaching assistant for Intermediate Web Design, Spring 2017, Spring 2016, Spring 2015, Spring 2014, Spring 2013
- Head teaching assistant for Introduction to Programming and Designing Web Applications, Fall 2014, Fall 2013, Fall 2011
- Research assistant for Professor Geri Gay in Spring 2012

### **UX Research Intern | 06/2015-08/2015**

National Public Radio (NPR), Washington, DC, USA

- Conducted a user study (diary studies and interviews) to understand how people follow news stories
- Designed a UX research toolkit and standardized UX research process for NPR design team

### **User Research Intern | 05/2014-08/2014**

IBM, Yorktown Heights, NY, USA

- Designed, built (using LilyPad arduino), and evaluated a wearable device
- Conducted user study (interviews and surveys) to evaluate the wearable device and analyzed study data
- Designed and built an iPhone app which reads and displays data from T.I. SensorTag
- Designed the user interface of an Android app called TeaTime (a hackathon project)

### **User Research Intern | 09/2012-12/2012**

Ericsson, Inc., CA, USA

- Conducted user interviews to understand the user experience of energy use in commercial buildings, analyzed interview data using affinity diagrams
- Designed and developed an interactive website for monitoring energy use
- Designed the user interface of a disaster notification Android application

### **Product Design Intern | 05/2011-08/2011**

Wandou Lab, Beijing, China

- Analyzed use cases, wireframed, and prototyped different design ideas for an Android app
- Designed the user experience (information architecture, functions, etc.) and user interfaces for an Android app

### **Associate Instructor (Teaching Assistant) | 09/2009-05/2011**

Indiana University Bloomington, IN, USA

- Associate Instructor for Professor Eli Blevis (Foundations of Human-Computer Interaction Design, Fall 2010)
- Associate Instructor for Professor David Wild (Information Representation, Spring 2009)
- Associate Instructor for Professor Dennis Groth (Design and Develop an Information System, Fall 2009)
- Mentoring undergraduate students with design research and human-computer interaction design practice

## Engineering Intern | 06/2008-08/2008

### Sun Yat-sen Software Technology Co. Ltd

- Led a team of six engineers to design and develop a Logistics Service Management System
- Used Unified Process (UP Model) to manage the design process—balanced time, risks, quality and made sure proper communications
- The only person who received the Best Weekly Report twice. The weekly reports were published as posters

## Conferences Attended

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- **CHI 2016** (San Jose, CA, USA) | 05/2016
- **iConference 2015** (Irvine, CA, USA) | 03/2015 (**Presented in ICT for Sustainability workshop**)
- **MobileHCI 2014** (Toronto, Canada) | 09/2014 (**Presented a poster**)
- **CHI 2014** (Toronto, Canada) | 04/2014
- **CSCW 2014** (Baltimore, MD, USA) | 02/2014 (**Presented a demo**)
- **Interaction 11** (Boulder, CO, USA) | 02/2011
- **7<sup>th</sup> International Conference on Design and Emotion** (Chicago, IL, USA) | 10/2010 (**Presented a paper**)
- **CHI 2010** (Atlanta, GA, USA) | 04/2010

## Honors & Awards

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- **Special Award** of Orientation Volunteering of Indiana University Bloomington | 08/2010
- **Best Graduate** of Sun Yat-sen University | 06/2009
- **Best Capstone Paper** of Sun Yat-sen University | 06/2009
- **1<sup>st</sup> Prize of the “Citi Cup” Technology Application Competition** of Sun Yat-sen University | 05/2008-10/2008  
This project is about a bank application we designed, which is called NAVIBANK—navigating and locating banks system. It aims at improving bank service and shortening people’s waiting time.
- 2007-2008 National Scholarship of China (**top 1%**) | 02/2008
- 2007-2008 First Scholarship of Sun Yat-sen University (**top 1%**) | 02/2008
- 2006-2007 National Scholarship of China (**top 1%**) | 02/2007
- 2006-2007 First Scholarship of Sun Yat-sen University (**top 1%**) | 02/2007
- 2005-2006 Second Scholarship of Sun Yat-sen University (**top 5%**) | 02/2006
- Superior Prize of the 3<sup>rd</sup> National Creative English Composition Competition (top 13%) | 02/2005

## Academic Services

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- **Web Designer & Webmaster** of CHI 2017, responsible for designing and building the website, web app for CHI 2017
- **Paper Reviewer** of MobileHCI 2017 (currently reviewing 3 full papers)
- **Paper Reviewer** of INTERACT 2017 (currently reviewing 2 full papers)
- **Paper Reviewer** of CHI 2017 (reviewed 7 full papers)
- **Paper Reviewer** of HRI 2017 (reviewed 2 full papers)
- **Reviewer** of IxDa 2017 (reviewed 5 entries)
- **Paper Reviewer** of CHI 2016 (reviewed 4 full papers and 1 short paper)
- **Reviewer** of IxDA 2016 (reviewed 5 design entries)
- **Paper Reviewer** of CHI 2015 (reviewed 3 full papers and 3 short papers)

- **Reviewer** of IxDA conference (reviewed 15 design entries)
- **Paper Reviewer** of DIS 2014 (reviewed 3 short papers)
- **Paper Reviewer** of MobileHCI 2014 (reviewed 3 full papers and 3 short papers)
- **Student Volunteer** of CSCW 2014 (Baltimore, MD, USA) | 02/2014
- Member of **Women in Engineering** of Cornell University, USA | 08/2011-Present
- **Student Volunteer** of interaction'11 (Boulder, CO, USA) | 02/2011
- Member of **Association for Computing Machinery (ACM)** | 11/2010-Present
- **Student Volunteer** of the 7<sup>th</sup> International Conference on Design and Emotion (Chicago, IL, USA) | 10/2010
- Member of **Sustainable CHI** | 09/2010-Present
- Member of **Women in Computing (WIC)** of Indiana University Bloomington, USA | 09/2009-Present

## Skills

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- Languages | Mandarin (native), Cantonese (native), English (fluent)
- User-Centered Methods | Diary Studies, Mind Mapping, Ethnographic Observation, Contextual Inquiry, Interviews, Field Studies, Focus Group, Surveys, Lab Experiments, Photo Documentary, Cultural Probes, Use Cases, Persona, Scenario, Wireframing, Prototyping, Storyboarding, Comparative Analysis, Statistical Analysis, Qualitative analysis, Affinity Diagram, Card-sorting, Usability Tests, Wizard of Oz
- Visualization | Adobe Creative Suite (Illustrator, Photoshop, InDesign, Muse), Premiere, After Effect, Expression Blend, Expression Design
- Wireframe, Prototype | Axure RP, Balsamiq, InVision, Sketch
- Programming | HTML/CSS, JavaScript, PHP, Java (Processing, Arduino Sketch), Objective C, Python, SQL
- Modeling | UML, IBM Rose, Visio, Enterprise Architecture
- Hardware | LilyPad Arduino, LittleBits, iBeacon, TI SensorTag
- Analysis | Qualitative Analysis (Atlas.ti), Quantitative Analysis (minitab, SPSS, SAS, JMP, Excel)

## Social & Campus Work

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- **Student Volunteer** of Fall 2010 International Student Orientation of Indiana University Bloomington | 08/2010
- **Student Volunteer of 2010 Asian Games** | 01/2009-03/2009
- **Volunteer of Da Tong Social Service Center** (Guangzhou, China) | 2008
- **Social Chair** of Students Union in Software School of Sun Yat-sen University | 2006-2007
- **Vice president** of Software Technology Club of Sun Yat-sen University | 2006-2007
- Member of Microsoft Club of Sun Yat-sen University | 2005-2006

## Selected Portfolio

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### **EnergyHome | Mobile Application Design and User Experience Research, 2014**

EnergyHome is a mobile application designed to motivate families or housemates to conserve household energy collectively and collaboratively. The two key features, personal energy goal-tracking and group energy goal-tracking, allow users to keep track of energy-saving tasks both individually and collaboratively.

### **EnergySense | Mobile Application Design and User Experience Research, 2015**

EnergySense is an iOS mobile application that balances automation and personal control to reduce energy consumption by supporting users' experiences (e.g., comfort, sense of secure)

**TweetDrops | Data Visualization and User Experience Design, 2014**

People talk and discuss sustainability online. The idea of TweetDrops is to aggregate tweets related sustainability from Twitter and visualize those data to draw people's attention on sustainability issue.

**Time Album | Design Research and Design Concept, 2010**

Time witnesses a person's path of growing and developing. It tells us stories of life. The idea of Time Album aims to connect the notion of time with memories and dreams—not letting memories fade away, and fulfilling people's dreams of seeing their future.

**Communication Wall | Design Research and Design Concept, 2010**

Music can convey meanings through cultures, languages, and ages. It is a tool to inform communication. The idea of Communication Wall is based on this assumption, which aims to use music to be responsive and communicative to people's emotional. It is an ambient wall that can communicate with people. It responds to people's emotion or feeling with ambient music and picture.

**musicWALK—Tunes from your walking experience | Interaction Design, 2010**

Walking, as a fundamental part in our daily life, needs to be promoted. musicWALK is an iPhone application that uses music as an incentive to encourage people to walk. It enables people to generate music while walking and the generated music is influenced by people's walking experience.

**e-board: expressive, emotive, electronic | Interaction Design, 2009**

Nowadays, many people have trouble finding time to be with their families. For some people, this comes from the time constraints placed on a family in which all the members have separate, and demanding, schedules. For other people, the constraint is geographic and monetary that they can't be expected to regularly visit their families without suffering significant financial burden. e-board is an internet-based bulletin board that facilitates families communications despite geographic or chronological constraints. It aims to provide an emotionally fulfilling, immediate communication medium that could utilize a wide array of communication styles, without putting serious time constraints on the users.