

# Lei Shi

**Jacobs Technion-Cornell Institute**  
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## RESEARCH INTERESTS

My research interests lie in the fields of accessibility, human computer interaction and design. Specifically, I am exploring how to combine novel sensing technologies and innovative design to help people.

## EDUCATION

- 2014.8-Present Ph.D. in Information Science**  
Cornell University  
Committee: Shiri Azenkot (Chair), François Guimbretière, Serge Belongie
- 2010.9-2014.6 B.Eng. in Electrical Engineering**  
**B.Eng. in Industrial Design**  
Zhejiang University  
Graduated with two distinction awards on senior thesis
- 2013.6-2013.9 Summer Research Program**  
University of California, Davis

## PUBLICATIONS

Lei Shi, Yuhang Zhao, and Shiri Azenkot. 2017. Designing Interactions for 3D Printed Models with Blind People. In Proceedings of the 19th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '17), 200-209.

Lei Shi, Yuhang Zhao, and Shiri Azenkot. Markit and Talkit: A Low-Barrier Toolkit to Augment 3D Printed Models with Audio Annotations. In Proceedings of the 30th Annual ACM Symposium on User Interface Software and Technology (UIST '17), 493-506.

Lei Shi, Ross McLachlan, Yuhang Zhao, Shiri Azenkot. Magic Touch: Interacting with 3D Printed Graphics. In Proceedings of the 18th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '16), 329-330.

Lei Shi, Idan Zelzer, Catherine Feng, Shiri Azenkot. Tickers and Talker: An Accessible Labeling Toolkit for 3D Printed Models. In Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems (CHI '16), 4896-4907.

Lei Shi. Talkabel: A Labeling Method for 3D Printed Models. In Proceedings of the 17th International ACM SIGACCESS Conference on Computers & Accessibility (ASSETS '15), 361-362. **\*1<sup>st</sup> Place, Student Research Competition\***

## EMPLOYMENT

- 2017.5-2017.8 Facebook**, Menlo Park, CA  
UX Research Intern, Growth
- 2016.5-2016.8 IBM Research**, Yorktown Heights, NY  
Research Intern, Cognitive Environments and Cognitive Objects Group
- 2014.9-Present Cornell Tech**, New York, NY

Research Assistant  
Teaching Assistant

**2013.9-2013.11 Wenzhou Electric Power Design Co., Ltd**, Wenzhou, China  
Electrical Engineer Intern

#### RESEARCH EXPERIENCE

**2016.5-2016.8 IBM Research**  
**Converting Everyday Objects into Smart Controllers:** We developed a novel technique that allows users to use passive everyday objects to control a smart environment. The technique was deployed at the Cognitive Environments Laboratory.

**2014.9-Present Cornell Tech**  
**Always Accessible Input:** We build novel interfaces that enable users to access and input information on the go. We use different sensors (e.g., EMG, IMU) and interaction techniques to connect users with smart devices.  
**Interactive Fabrication Tools:** We use 3D printing to build education materials for blind students. We design and build tools that can make printed models more interactive and can explain themselves without specialized equipment.

**2013.7-2013.9 University of California, Davis**  
**Innovative Traditional Chinese Medicine App:** We developed an iOS App that allows users to detect their health conditions by simply scanning their tongues.

#### TEACHING EXPERIENCE

**2016.8-2016.12 INFO 5305: Usability and User Experience Research**, Cornell Tech  
Teaching Assistant

**2015.1-2015.5 INFO 6410: Human Computer Interaction and Design**, Cornell Tech  
& **2016.1-2016.5** Teaching Assistant

**2013.3/2013.10 Interactive Game Design Workshop**, Zhejiang University  
Lecturer, Basic Processing and Arduino Skills

#### HONORS

- 2015** First Place, Student Research Competition, ASSETS 2015
- 2015** AOL Fellow, Connected Experiences Lab, Cornell Tech
- 2015** Conference Travel Grant, Graduate School, Cornell University
- 2014** Distinguish Graduation Thesis Awards, Zhejiang University
- 2012** Outstanding Student Leader Award (2%), Zhejiang University
- 2011** First-Class Scholarship for Outstanding Students (<3%), Zhejiang University

#### SKILLS

Research:

Languages: Processing, Arduino, HTML, CSS, Python

Electronics: Arduino, Digital Signal Processor (DSP)

Design: Rhinoceros, Keyshot, Illustrator, Photoshop

Methods:

Qualitative Methods: Interviewing, Participatory Design

Quantitative Methods: Statistical Analysis, Hypothesis Testing

Design Methods: Profile and Scenario, Storyboard, Heuristic Evaluations