

# Jackie (Junrui) Yang

CS PHD CANDIDATE AT STANFORD UNIVERSITY

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## Education

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### Stanford University

Stanford, CA, USA

PH.D. CANDIDATE IN COMPUTER SCIENCE

Sept. 2016 - now

- Awarded Stanford School of Engineering Scholarship

### Peking University

Beijing, China

B.S. IN COMPUTER SCIENCE

Sept. 2012 - Jun. 2016

- Awarded Peking University Leo Ko Guan Scholarship(2nd/53)
- Awarded Peking University Founder Scholarship(2nd/53)
- Graduated with honor

## Experience

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### Stanford University (Co-advised by Prof. James Landay and Prof. Monica Lam)

California, USA

RESEARCH ASSISTANT

Sept. 2017 - Now

- HybridTrak: Adding Full-Body Tracking to VR Using an Off-the-Shelf Webcam
- DoThisHere: Multimodal Interaction to Improve Cross-Application Tasks on Mobile Devices
- Soundr: Head position and orientation prediction using a microphone array
- InfoLED: Augmenting LED Indicator Lights for Device Positioning and Communication
- VR Segway: Using self-balancing-vehicle and visual illusion to provide convincing VR locomotion experience

### Microsoft Research (Christian Holz, Eyal Ofek, Andy Wilson)

Washington, USA

RESEARCH INTERN

Jun. 2018 - Sept. 2018

- DreamWalker: Substituting Real-World Walking Experiences with a Virtual Reality

### IXL Lab, HP Inc. (Tico Ballagus)

California, USA

RESEARCH INTERN

Jun. 2017 - Sept. 2017

- Ungrounded Haptic Retargeting: leverage haptic illusion on tools to provide ungrounded force feedback

### MobiSocial Lab, Stanford University (Prof. Monica Lam)

California, USA

RESEARCH ASSISTANT

Apr. 2017 - Jun. 2017

- Re-purpose indication light on commercial hardware for select and control

### IxD Lab, Stanford University (Prof. James Landay)

California, USA

RESEARCH ASSISTANT

Jan. 2017 - Mar. 2017

- Using drones to provide haptic feedback in Virtual Reality.

### Shape Lab, Stanford University (Prof. Sean Follmer)

California, USA

RESEARCH ASSISTANT

Sept. 2016 - Dec. 2016

- Working on a compact, hi-resolution physical texture display.

### SORA, Peking University (Prof. Chenren Xu)

Beijing, China

RESEARCH INTERN

May 2016 - Aug. 2016

- Working on passive visible light communication system, accepted by MobiCom 2017.

### Ubicomp Group, Georgia Institute of Technology (Prof. Gregory Abowd)

Georgia, USA

STUDENT RESEARCH INTERN

Nov. 2015 - Feb. 2016

- Working on interaction technique based on acoustic information, accepted by ISWC'16.

## Ubicomp Lab, Carnegie Mellon University (Prof. Anind Dey)

STUDENT RESEARCH INTERN

- Working on Bluewave, an opportunistic context sharing framework, accepted by EICS 16'
- Working on IoT end-user programming toolkit.

Pittsburgh, USA

Jul. 2015 - Sept. 2015

## Wireless and Networking research group, Microsoft Research Asia (Jacky Shen)

RESEARCH INTERN

- Working on detecting handwriting annotations on printed document by mobile devices.

Beijing, China

Jan. 2015 - Jun. 2015

## Biodynamics Optical Imaging Center, Peking University (Prof. Yanyi Huang)

RESEARCH INTERN

- Built "Cell Picker", a Computer assisted high throughput cell selecting system.
- Built "Micro-droplet generator", submitted a paper in Chemical Science.
- Introduced Cell Picker to Jinping Xi, the Chairman(President) of China, when he visited Peking University.

Beijing, China

Jun. 2013 - Sept. 2014

## Publication

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### HybridTrak: Adding Full-Body Tracking to VR Using an Off-the-Shelf Webcam

JACKIE YANG; TUOCHAO CHEN; FANG QIN; MONICA S. LAM; JAMES A. LANDAY

*Proceedings of the 2022 CHI  
Conference on Human Factors in  
Computing Systems*

2022

### DoThisHere: Multimodal Interaction to Improve Cross-Application Tasks on Mobile Devices

JACKIE YANG; MONICA S. LAM; JAMES A. LANDAY

*Proceedings of the 33rd Annual ACM  
Symposium on User Interface  
Software and Technology (UIST)*

2020

### Soundr: head position and orientation prediction using a microphone array

JACKIE YANG; GAURAB BANERJEE; VISHESH GUPTA; MONICA S. LAM; JAMES A. LANDAY

*Proceedings of the 2020 CHI  
Conference on Human Factors in  
Computing Systems*

2020

### DreamWalker: Substituting Real-World Walking Experiences with a Virtual Reality

JACKIE YANG; CHRISTIAN HOLZ; EYAL OFEK; ANDREW D WILSON

*Proceedings of the 32nd Annual  
ACM Symposium on User Interface  
Software and Technology (UIST)*

2019

### InfoLED: Augmenting LED Indicator Lights for Device Positioning and Communication

JACKIE YANG; JAMES A LANDAY

*Proceedings of the 32nd Annual  
ACM Symposium on User Interface  
Software and Technology (UIST)*

2019

### Beyond The Force: Using Quadcopters to Appropriate Objects and the Environment for Haptics in Virtual Reality

PARASTOO ABTAHI; BENOIT LANDRY; JACKIE YANG; MARCO PAVONE; SEAN FOLLMER; JAMES A LANDAY

*Proceedings of the 2019 CHI  
Conference on Human Factors in  
Computing Systems (UIST)*

2019

### VR Grabbers: Ungrounded Haptic Retargeting for Precision Grabbing Tools

JACKIE YANG; HIROSHI HORII; ALEXANDER THAYER; RAFAEL BALLAGAS

*The 31st Annual ACM Symposium on  
User Interface Software and  
Technology (UIST)*

2018

## **PassiveVLC: Enabling Practical Visible Light Backscatter Communication for Battery-free IoT Applications**

XIEYANG XU; YANG SHEN; **JACKIE (JUNRUI) YANG**; CHENREN XU; GUOBIN SHEN; GUOJUN CHEN

*The 23rd Annual International Conference on Mobile Computing and Networking (MobiCom)*

2017

## **shiftIO: Reconfigurable Tactile Elements for Dynamic Affordances and Mobile Interaction**

EVAN STRASNICK; **JACKIE YANG**; KESLER TANNER; ALEX OLWAL; SEAN FOLLMER;

*Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*

2017

## **Watchout: Extending interactions on a smartwatch with inertial sensing**

ZHANG, CHENG; **YANG, JUNRUI**; SOUTHERN, CALEB; STARNER, THAD E; ABOWD, GREGORY D;

*Proceedings of the 2016 ACM International Symposium on Wearable Computers*

2016

## **Bluewave: enabling opportunistic context sharing via bluetooth device names**

DE FREITAS, ADRIAN A; NEBELING, MICHAEL; RANITHANGAM, AKSHAYE SHREENITHI KIRUPA KARTHIKEYAN; **YANG, JUNRUI**; DEY, ANIND K;

*Proceedings of the 8th ACM SIGCHI Symposium on Engineering Interactive Computing Systems*

2016

## **Snap-To-It: A User-Inspired Platform for Opportunistic Device Interactions**

ADRIAN A DE FREITAS, MICHAEL NEBELING, XIANG'ANTHONY' CHEN, **JUNRUI YANG**, AKSHAYE SHREENITHI KIRUPA KARTHIKEYAN RANITHANGAM, ANIND K DEY;

*Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems*

2016

## **Spinning micropipette liquid emulsion generator for single cell whole genome amplification**

CHEN, ZITIAN; FU, YUSI; ZHANG, FANGLI; LIU, LU; ZHANG, NAIQING; ZHOU, DONG; **YANG, JUNRUI**; PANG, YUHONG; HUANG, YANYI;

*Lab on a Chip*

2016

## **Design, preparation, and selection of DNA-encoded dynamic libraries**

LI, GANG; ZHENG, WENLU; CHEN, ZITIAN; ZHOU, YU; LIU, YU; **YANG, JUNRUI**; HUANG, YANYI; LI, XIAOYU;

*Chemical Science*

2015

## **A high-performance and high-programmability reconfigurable wireless development platform**

CHEN, JIAHUA; WANG, TAO; WU, HAOYANG; GONG, JIAN; LI, XIAOQUANG; HU, YANG; ZHANG, GAOHAN; LI, ZHIWEI; **YANG, JUNRUI**; LU, SONGWU;

*Field-Programmable Technology (FPT), 2014 International Conference on*

2014

## **Extracurricular Activity**

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### **Stanford HCI Lunch Seminar**

ORGANIZER

*Stanford, CA, USA*

*Sept. 2019 - Aug. 2020*

### **Peking University Makerspace**

CO-FOUNDER, PRESIDENT

*Beijing, China*

*Nov. 2014 - June 2016*