

Jun GONG

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RESEARCH INTERESTS

My research spans a range of different topics in **Human-Computer Interaction (HCI)**. I design, build and evaluate **novel input and interaction** for emerging platform, media and technology to provide enhanced and compelling user experiences. Specifically, I have developed sensing techniques for wearable devices to enable user's input **without using touchscreen**. I have also investigated **seamless contextual sensing** by bringing sensing capabilities to everyday objects such as garment and accessories.

EDUCATION

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| 2020 | | Dartmouth College, Hanover, NH, UNITED STATES |
| 2015 - | | <ul style="list-style-type: none">◦ Ph.D. in Computer Science, Department of Computer Science◦ Research Area : Human-Computer Interaction◦ Advisor : Xing-Dong Yang |
| 2014 | | Beijing University of Posts and Telecommunications, Beijing, CHINA |
| 2010 - | | <ul style="list-style-type: none">◦ B.E. in Electronic Engineering, School of Electronic Engineering◦ Cumulative GPA : 89/100 or 3.8/4 Ranking : 4th/280 |

HONORS AND AWARDS

- 2019 **Best Paper Award**, *ACM UIST 2019* (Top 1%)
- 2019 **Honorable Mention Award**, *ACM CHI 2019* (Top 5%)
- 2019 **Neukom Institute Student Travel Grant**
- 2018 **Honorable Mention Award**, *ACM CHI 2018* (Top 5%)
- 2013 **Second Prize** in **National Undergraduate Electronic Design** contest (Top 5%)
- 2013 **First-Class Scholarship** of Beijing University of Posts and Telecommunications (Top 5%)
- 2012 **First-Class Scholarship** of Beijing University of Posts and Telecommunications (Top 5%)
- 2011 "Tang Jun & Sun Chunlan" Enterprise Scholarship (Top 1%)

PUBLICATIONS

In the field of Human-Computer Interaction (HCI), **CHI** and **UIST** are amongst the top-tier publication venues (acceptance rate around 20 - 25%). I published all my papers in these two venues.

- [C.20] **Jun Gong**, Aakar Gupta, Hrvoje Benko. Acustico : Surface Tap Detection and Localization using Wrist-based Acoustic TDOA Sensing. In *Proceedings of the ACM Symposium on User Interface Software and Technology (UIST'20)*.
- [C.19] Pin-Sung Ku, **Jun Gong**, Te-Yen Wu, Yixin Wei, Yiwen Tang, Barrett Ens, Xing-Dong Yang. Zippro : The Design and Implementation of an Interactive Zipper. In *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI'20)*.
- [C.18] Pin-Sung Ku, Qijia Shao, Te-Yen Wu, **Jun Gong**, Ziyang Zhu, Xia Zhou, Xing-Dong Yang (2020). ThreadSense : Locating Touch on an Extremely Thin Interactive Thread. In *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI'20)*.
- [C.17] Te-Yen Wu, Shutong Qi, Junchi Chen, MuJie Shang, **Jun Gong**, Teddy Seyed, Xing-Dong Yang (2020). Fabriccio : Touchless Gestural Input on Interactive Fabrics. In *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI'20)*.
- [C.16] Zheer Xu, Weihao Chen, Dongyang Zhao, Jiehui Luo, Te-Yen Wu, **Jun Gong**, Sicheng Yin, Jialun Zhai, Xing-Dong Yang (2020). BiTipText : Bimanual Eyes-Free Text Entry on a Fingertip Keyboard. In *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI'20)*.

- [C.15] **Jun Gong**, Yu Wu, Lei Yan, Teddy Seyed, Xing-Dong Yang (2019). Tessutivo : Contextual Interactions on Interactive Fabrics with Inductive Sensing. In *Proceedings of the ACM Symposium on User Interface Software and Technology (UIST'19)*.
- [C.14] **Jun Gong***, Josh Urban Davis*, Yunxin Sun, Parmit Chilana, Xing-Dong Yang (*co-primary). CircuitStyle : A System for Peripherally Reinforcing Best Practices in Hardware Computing. In *Proceedings of the ACM Symposium on User Interface Software and Technology (UIST'19)*.
- [C.13] Te-Yen Wu, **Jun Gong**, Teddy Seyed, Xing-Dong Yang (2019). Proxino : Enabling Prototyping of Virtual Circuits With Physical Proxies. In *Proceedings of the ACM Symposium on User Interface Software and Technology (UIST'19)*.
- [C.12] Zheer Xu*, Pui Chung Wong*, **Jun Gong**, Te-Yen Wu, Aditya Shekhar Nittala, Xiaojun Bi, Jürgen Steinle, Hongbo Fu, Kening Zhu, Xing-Dong Yang (*co-primary). TipText : Eyes-Free Text Entry on a Fingertip Keyboard. In *Proceedings of the ACM Symposium on User Interface Software and Technology (UIST'19)*. **Best Paper Award**.
- [C.11] **Jun Gong**, Fraser Anderson, George Fitzmaurice, Tovi Grossman (2019). Instrumenting and Analyzing Fabrication Activities, Users, and Expertise. In *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI'19)*.
- [C.10] Jo-Yu Lo, Da-Yuan Huang, Tzu-Sheng Kuo, Chen-Kuo Sun, Teddy Seyed, **Jun Gong**, Xing-Dong Yang, Bing-Yu Chen (2019). AutoFritz : Autocomplete for Prototyping Virtual Breadboard Circuits. In *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI'19)*. **Honorable Mention Award**.
- [C.9] Shan-Yuan Teng, Da-Yuan Huang, Chi Wang, Teddy Seyed, **Jun Gong**, Xing-Dong Yang, Bing-Yu Chen (2019). Aarnio : Passive Kinesthetic Force Output for Foreground Interactions on an Interactive Chair. In *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI'19)*.
- [C.8] **Jun Gong**, Xin Yang, Teddy Seyed, Josh Urban Davis, Xing-Dong Yang (2018). Indutivo : Contact-Based, Object-Driven Interactions with Inductive Sensing. In *Proceedings of the ACM Symposium on User Interface Software and Technology (UIST'18)*.
- [C.7] Da-Yuan Huang, Teddy Seyed, Linjun Li, **Jun Gong**, Zhihao Yao, Yuchen Jiao, Xiang Anthony Chen, Xing-Dong Yang (2018). Orecchio : Extending Body-Language through Actuated Static and Dynamic Auricular Postures. In *Proceedings of the ACM Symposium on User Interface Software and Technology (UIST'18)*.
- [C.6] **Jun Gong**, Zheer Xu, Qifan Guo, Teddy Seyed, Xiang 'Anthony' Chen, Xiaojun Bi and Xing-Dong Yang (2018). WrisText : One-handed Text Entry on Smartwatch using Wrist Gestures. In *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI'18)*. **Honorable Mention Award**.
- [C.5] **Jun Gong**, Da-Yuan Huang, Teddy Seyed, Te Lin, Tao Hou, Xin Liu, Molin Yang, Boyu Yang, Yuhan Zhang and Xing-Dong Yang (2018). Jetto : Using Lateral Force Feedback for Smartwatch Interactions. In *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI'18)*.
- [C.4] **Jun Gong**, Yang Zhang, Xia Zhou and Xing-Dong Yang (2017). Pyro : Thumb-Tip Gesture Recognition Using Pyroelectric Infrared Sensing. In *Proceedings of the ACM Symposium on User Interface Software and Technology (UIST'17)*.
- [C.3] Da-Yuan Huang, Ruizhen Guo, **Jun Gong**, Jingxian Wang, John Graham, De-Nian Yang and Xing-Dong Yang. (2017). Retro-Shape : Leveraging Rear-Surface Shape Displays for 2.5D Interaction on Smartwatches. In *Proceedings of the ACM Symposium on User Interface Software and Technology (UIST'17)*.
- [C.2] **Jun Gong**, Lan Li, Daniel Vogel and Xing-Dong Yang (2017). Cito : An Actuated Smartwatch for Extended Interactions. In *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI'17)*.
- [C.1] **Jun Gong**, Xing-Dong Yang and Pourang Irani (2016). WristWhirl : One-handed Continuous Smartwatch Input using Wrist Gestures. In *Proceedings of the ACM Symposium on User Interface Software and Technology (UIST'16)*.

EMPLOYMENT EXPERIENCE

Present 2020.09	Apple, Seattle, WA, UNITED STATES <ul style="list-style-type: none"> ○ Research Scientist in Apple AI/ML ○ Lead research in sensing, machine learning and HCI
2020.03 2019.12	Apple, Pittsburgh, PA, UNITED STATES <ul style="list-style-type: none"> ○ Research Intern, advised by Gierad Laput ○ Develop novel sensing interactive system fueled by AI/ML

- 2019.11 | Facebook Reality Lab, Redmond, WA, UNITED STATES
- 2019.06 |
 - o Research Intern, advised by Aakar Gupta and Hrvoje Benko
 - o Investigate novel sensing/input techniques for AR/VR applications [C.20]

- 2018.10 | Autodesk Research, Toronto, ON, CANADA
- 2018.06 |
 - o Research Intern, advised by Tovi Grossman and Fraser Anderson
 - o Detect and identify activities, users and skills in fabrication space [C.11]

PATENTS

- [P.7] J. Gong, A. Gupta, H. Benko. Wearable Device And User Input System For Computing Devices And Artificial Reality Environments. U.S. Patent 62/981,245 filed Feb. 25, 2020.
- [P.6] J. Gong, A. Seyed, and X. D. Yang. Contextual Interactions on Interactive Fabrics with Inductive Sensing. (pending)
- [P.5] T. Wu, J. Gong, A. Seyed, and X. D. Yang. Enabling Prototyping of Virtual Circuits with Physical Proxies. (pending)
- [P.4] Z. Xu, J. Gong, X. Bi, and X. D. Yang. Eyes-Free Text Entry on a Fingertip Keyboard. (pending)
- [P.3] J. Gong, F. Anderson, G. Fitzmaurice, T. Grossman. Techniques for Tailoring Fabrication Environments Based on User, Task, and Expertise. U.S. Patent 16/537,463 filed Aug. 09, 2019. **Patent Issued.**
- [P.2] J. Gong and X. D. Yang. Inductive Sensors Including Arrays of Inductive Coils and Methods of Using Same. U.S. Patent 62/743,270 filed Oct. 9, 2018.
- [P.1] X. D. Yang, J. Gong, Y. Zhang and X. Zhou. Infrared-Based Gesture Sensing And Detection Systems, And Apparatuses, Software, And Methods Relating To Same. U.S. Patent 16/163,201 filed Oct. 17, 2018. **Patent Issued.**

ACADEMIC SERVICES

- Chairing** CHI'20 Late Breaking Work, Program Committee Associate Chair (AC)
Graphics Interface'21, International Program Committee (IPC)
UIST'21, Program Committee Associate Chair (AC)
- Reviewer** CHI, UIST, Ubicomp, DIS, ISS, MobileHCI, GI, TEI, ISWC, SIGGRAPH Asia, IJHCS, IJHCI (60+ papers)
- Volunteer** UIST 2016, UIST 2017

TEACHING EXPERIENCE

- 2016.06 | COSC 165, Smartphone Programming, Dartmouth College
- 2016.03 |
 - o held office hours, graded labs and course projects, and prepared exam questions

- 2016.03 | COSC 189, Introduction to Human-Computer Interaction, Dartmouth College
- 2016.01 |
 - o held office hours, graded labs and course projects, and shepherded course projects

- 2015.12 | COSC 175, Introduction to Bioinformatics, Dartmouth College
- 2015.09 |
 - o held office hours, graded labs and shepherded course projects

SKILLS

- Programming** C/C++, Java, C#, Python, Swift, Objective C
- Tools** Matlab, Solidworks, Weka, Android SDK, IOS, Unity, Arduino