

## **Xiang 'Anthony' Chen**

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<https://hci.prof>

### **Current Position**

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| 2018-Now | Assistant<br>Professor | Department of Electrical & Computer Engineering<br>UCLA |
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### **Education**

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|-----------|--------|--|
| 2012-2017 | Ph.D.  | Carnegie Mellon University<br>School of Computer Science<br>Advisors: Scott Hudson and Stelian Coros<br>Committee: Jodi Forlizzi and Tovi Grossman |
| 2010-2012 | M.Sc.  | University of Calgary<br>Department of Computer Science<br>Advisors: Saul Greenberg and Richard Levy<br>Committee: Barry Wylant and Larry Katz     |
| 2010-2010 |        | Universidad Politécnica de Madrid<br>Exchange student in Telecommunication Engineering, E.T.S.I. Telecomunicación                                  |
| 2006-2010 | B.Eng. | Zhejiang University<br>Department of Computer Science<br>Chu Kochen Honors College   |
| 2003-2006 |        | Affiliated High School of South China Normal University<br>Innovation Class student in Science   |

### **Awards**

|      |  |
|------|--|
| 2023 | CHI Best Paper Honorable Mention Award |
| 2022 | Intel Rising Star Award                |
| 2022 | UIST Best Paper Award                  |
| 2022 | Google Research Scholar Award          |

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| 2021      | ONR Young Investigator Award   |
| 2021      | NSF CAREER Award <a href="#">↗</a>   |
| 2020      | Hellman Fellowship   |
| 2020      | CHI Best Paper Honorable Mention Award <a href="#">↗</a>                     |
| 2019      | NSF CISE Research Initiation Initiative (CRII) Award <a href="#">↗</a>       |
| 2018      | CHI Best Paper Honorable Mention Award <a href="#">↗</a>                     |
| 2016      | Adobe Research PhD Fellowship  |
| 2015      | Qualcomm Innovation Fellowship Finalist                                      |
| 2014      | UIST Best Paper Award <a href="#">↗</a>                                      |
| 2014      | CHI Best Paper Award <a href="#">↗</a>                                       |
| 2014      | CHI Best Talk Award <a href="#">↗</a>  |
| 2013      | Qualcomm Innovation Fellowship Finalist                                      |
| 2012      | University of Calgary Department Research Award                              |
| 2010      | Academic Project Scholarships in Madrid-Spain for Chinese Technical Students |
| 2009      | Zhejiang University Academic Scholarship                                     |
| 2007-2008 | University of Hong Kong Crimson Summer Exchange Co-Fellowship                |

### *Awards Won by Students*

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| 2023 | Xingyu Liu - Amazon PhD Fellowship <a href="#">↗</a>   |
| 2023 | Hongyan Gu - UCLA ECE Dissertation Year Fellowship   |
| 2022 | Xingyu Liu - UCLA ECE Distinguished Master's Thesis Research Award <a href="#">↗</a>               |
| 2022 | Xingyu Liu - UCLA School of Engineering ED Rice Outstanding Master Student Award <a href="#">↗</a> |

## Professional Experiences

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|-----------|--------------------|--|
| 2022-2022 | Visiting Professor | Department of Computer Science<br>University of Tokyo<br>Collaborated with Prof. Takeo Igarashi's research group |
| 2021-2023 | Visiting Professor | Salesforce Research<br>Collaborated on multiple HCI + NLP projects   |
| 2018-2018 | Research Scientist | Tableau Research, Palo Alto<br>Enabling people to interact with data on mobile devices                           |

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|-----------|-----------------|--|
| 2015-2015 | Research Intern | Google Research, Mountain View<br>Mobile Interactive Computing Group with Yang Li<br>Developed a user-defined cross-device interaction framework                             |
| 2014-2014 | Research Intern | Microsoft Research, Redmond<br>Natural Interaction Research Group with Bill Buxton and Ken Hinckley<br>Developed a multi-wearable interactive system                         |
| 2013-2013 | Research Intern | Autodesk Research, Toronto<br>User Interface Research Group with Tovi Grossman, Daniel Wigdor, and George Fitzmaurice<br>Developed interaction techniques with smart watches |
| 2012-2012 | Research Intern | Microsoft Research, Redmond<br>Natural Interaction Research Group with Ken Hinckley and Hrvoje Benko<br>Developed motion and context sensing techniques for pen computing    |
| 2009-2010 | Research Intern | Microsoft Research Asia, Beijing<br>Media Computing Group with Bin B. Zhu<br>Developed novel CAPTCHA techniques and systems  |
| 2009-2009 | Engineer Intern | Alibaba Group, Hangzhou<br>Quality Assurance Group<br>Developed routines for testing data-centric web-based programs   |

## Publications

### *Conferences & Journals*

|      |           |   |                   |
|------|-----------|---|-------------------|
| 2023 | UIST      | Zihan Yan, Chunxu Yang, Qihao Liang, Pattie Maes, Xiang 'Anthony' Chen. XCreation: A Graph-based Crossmodal Generative Creativity Support Tool. To appear at UIST '23   |                   |
| 2023 | TOCHI     | Xiang 'Anthony' Chen, Chien-Sheng Wu, Lidiya Murakhovska, Philippe Labn, Tong Niu, Wenhao Liu, Caiming Xiong. Marvista: A Human-AI Collaborative Reading Tool. ACM Trans. Comput. Hum. Interact., 2023  | <a href="#">🔗</a> |
| 2023 | LNCS      | Hongyan Gu, Mohammad Haeri, Shuo Ni, Christopher Kazu Williams, Neda Zarrin-Khameh, Shino Magaki, Xiang 'Anthony' Chen. Detecting Mitoses with a Convolutional Neural Network for MIDOG 2022 Challenge. In: Sheng, B., Aubreville, M. (eds) Mitosis Domain Generalization and Diabetic Retinopathy Analysis. MIDOG DRAC 2022. Lecture Notes in Computer Science, vol 13597. Springer, Cham. | <a href="#">🔗</a> |
| 2023 | MobileHCI | Zihan Yan, Yanhong Wu, Danli Luo, Chao Zhang, Qihang Jin, Wei Chen, Yingcai Wu, Xiang 'Anthony' Chen, Guanyun Wang, Haipeng Mi. NaCanva: Exploring and Enabling the Nature-Inspired Creativity for Children. To appear at MobileHCI '23.  |                   |
| 2023 | GI        | Yijun Zhou, JinHong Lu, Xiang 'Anthony' Chen, Chia-Ming Chang, Takeo Igarashi. RelRoll: A Relative Elicitation Mechanism for Scoring Annotation with A Case Study on Speech Emotion. To appear at Graphics Interface '23.   | <a href="#">🔗</a> |

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|------|-------|--|-------------------|
| 2023 | CHI   | Hongyan Gu, Chunxu Yang, Mohammad Haeri, Jing Wang, Shirley Tang, Wenzhong Yan, Shujin He, Christopher Kazu Williams, Shino Magaki, Xiang 'Anthony' Chen. Augmenting Pathologists with NaviPath: Design and Evaluation of a Human-AI Collaborative Navigation System. Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems, 2023.<br><b>🌟 Best Paper Honorable Mention Award</b> | <a href="#">🔗</a> |
| 2023 | CHI   | Mina Huh, Saelyne Yang, Yi-Hao Peng, Xiang 'Anthony' Chen, Young-Ho Kim, Amy Pavel. AVscript: Accessible Video Editing with Audio-Visual Scripts. Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems, 2023.  | <a href="#">🔗</a> |
| 2023 | CHI   | Xingyu "Bruce" Liu, Vladimir Kirilyuk, Xiuxiu Yuan, Alex Olwal, Peggy Chi, Xiang 'Anthony' Chen, Ruofei Du. Visual Captions: Augmenting Verbal Communication with On-the-fly Visuals. Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems, 2023.  | <a href="#">🔗</a> |
| 2023 | CHI   | Philippe Laban, Chien-Sheng Wu, Lidiya Murakhovs'ka, Xiang 'Anthony' Chen, Caiming Xiong. Designing and Evaluating Interfaces that Highlight News Coverage Diversity Using Discord Questions. Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems, 2023.  | <a href="#">🔗</a> |
| 2023 | CHI   | Noyan Evirgen, Xiang 'Anthony' Chen. GANravel: User-Driven Direction Disentanglement in Generative Adversarial Networks. Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems, 2023.   | <a href="#">🔗</a> |
| 2023 | TOCHI | Hongyan Gu, Yuan Liang, Yifan Xu, Christopher Kazu Williams, Shino Magaki, Negar Khanlou, Harry Vinters, Zesheng Chen, Shuo Ni, Chunxu Yang, Wenzhong Yan, Xinhai Robert Zhang, Yang Li, Mohammad Haeri, Xiang 'Anthony' Chen. Improving Workflow Integration with xPath: Design and Evaluation of a Human-AI Diagnosis System in Pathology. ACM Trans. Comput. Hum. Interact., April, 2023.             | <a href="#">🔗</a> |
| 2022 | UIST  | Xingyu "Bruce" Liu, Ruolin Wang, Dingzeyu Li, Xiang 'Anthony' Chen, Amy Pavel. CrossA11y: Identifying Video Accessibility Issues via Cross-modal Grounding. Proceedings of the UIST '22: The 35rd Annual ACM Symposium on User Interface Software and Technology, 2022.<br><b>🏆 Best Paper Award</b>   | <a href="#">🔗</a> |
| 2022 | EMNLP | Philippe Laban, Chien-Sheng Wu, Lidiya Murakhovs'ka, Xiang 'Anthony' Chen, Caiming Xiong. Discord Questions: A Computational Approach To Diversity Analysis in News Coverage. Proceedings of the Findings of the Association for Computational Linguistics: EMNLP 2022   | <a href="#">🔗</a> |
| 2022 | UIST  | Noyan Evirgen, Xiang 'Anthony' Chen. GANzilla: User-Driven Direction Discovery in Generative Adversarial Networks. Proceedings of the UIST '22: The 35rd Annual ACM Symposium on User Interface Software and Technology, 2022  | <a href="#">🔗</a> |
| 2022 | IMWUT | Zihan Yan, Jiayi Zhou, Yufei Wu, Guanhong Liu, Danli, Luo, Zihong Zhou, Haipeng Mi, Lingyun Sun, Xiang 'Anthony' Chen, Ye Tao, Yang Zhang, Guanyun Wang. Shoes++: A Smart Detachable Sole for Social Foot-to-foot Interaction. Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies.  | <a href="#">🔗</a> |
| 2022 | CHI   | Zihan Yan, Yufei Wu, Yang Zhang, Xiang 'Anthony' Chen. EmoGlass: an End-to-End AI-Enabled Wearable Platform for Enhancing Self-Awareness of Emotional Health.  | <a href="#">🔗</a> |

Proceedings of the CHI '22: CHI Conference on Human Factors in Computing Systems, New Orleans, LA, USA, 29 April 2022, 2022.

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|------|------|---|
| 2022 | CHI  | Jiahao Li, Alexis Samoylov, Jeeun Kim, Xiang 'Anthony' Chen. Roman: Making Everyday Objects Robotically Manipulable with 3D-Printable Add-on Mechanisms. Proceedings of the CHI '22: CHI Conference on Human Factors in Computing Systems, New Orleans, LA, USA, 29 April 2022, 2022. <a href="#">🔗</a>   |
| 2022 | CHI  | Abul Al Arabi, Jiahao Li, Xiang 'Anthony' Chen, Jeeun Kim. Mobiot: Augmenting Everyday Objects into Moving IoT Devices Using 3D Printed Attachments Generated by Demonstration. Proceedings of the CHI '22: CHI Conference on Human Factors in Computing Systems, New Orleans, LA, USA, 29 April 2022, 2022. <a href="#">🔗</a>  |
| 2021 | CSCW | Hongyan Gu, Jingbin Huang, Lauren Hung, Xiang 'Anthony' Chen. Lessons Learned from Designing an AI-Enabled Diagnosis Tool for Pathologists. Proc. ACM Hum. Comput. Interact., 2021. <a href="#">🔗</a>   |
| 2021 | TEI  | Jeeun Kim, Qingnan Zhou, Amanda Ghassaei, Xiang 'Anthony' Chen. OmniSoft: A Design Tool for Soft Objects by Example. Proceedings of the TEI '21: Fifteenth International Conference on Tangible, 2021. <a href="#">🔗</a>  |
| 2021 | IUI  | Juan Carlo Rebanal, Jordan Combitsis, Yuqi Tang, Xiang 'Anthony' Chen. XAlgo: a Design Probe of Explaining Algorithms' Internal States via Question-Answering. Proceedings of the IUI '21: 26th International Conference on Intelligent User Interfaces, 2021. <a href="#">🔗</a>  |
| 2021 | IUI  | Yuan Liang, Liang Qiu, Tiancheng Lu, Zhujun Fang, Dezhan Tu, Jiawei Yang, Yiting Shao, Kun Wang, Xiang 'Anthony' Chen, Lei He. OralViewer: 3D Demonstration of Dental Surgeries for Patient Education with Oral Cavity Reconstruction from a 2D Panoramic X-ray. Proceedings of the IUI '21: 26th International Conference on Intelligent User Interfaces, 2021 <a href="#">🔗</a> |
| 2021 | CHI  | Ruolin Wang, Zixuan Chen, Mingrui Ray Zhang, Zhaoheng Li, Zhixiu Liu, Zihan Dang, Chun Yu, Xiang 'Anthony' Chen. Revamp: Enhancing Accessible Information Seeking Experience of Online Shopping for Blind or Low Vision Users. Proceedings of the CHI '21: CHI Conference on Human Factors in Computing Systems, 2021 <a href="#">🔗</a>   |
| 2021 | CHI  | Xingyu Liu, Patrick Carrington, Xiang 'Anthony' Chen, Amy Pavel. What Makes Videos Accessible to Blind and Visually Impaired People? Proceedings of the CHI '21: CHI Conference on Human Factors in Computing Systems, 2021. <a href="#">🔗</a>  |
| 2020 | VRST | Yudai Tanaka, Arata Horie, Xiang 'Anthony' Chen. DualVib: Simulating Haptic Sensation of Dynamic Mass by Combining Pseudo-Force and Texture Feedback. Proceedings of the VRST '20: 26th ACM Symposium on Virtual Reality Software and Technology, 2020. <a href="#">🔗</a>   |
| 2020 | UIST | Ritam Jyoti Sarmah, Yunpeng Ding, Di Wang, Cheuk Yin Phipson Lee, Toby Jia-Jun Li, Xiang 'Anthony' Chen. Geno: A Developer Tool for Authoring Multimodal Interaction on Existing Web Applications. Proceedings of the UIST '20: The 33rd Annual ACM Symposium on User Interface Software and Technology, 2020. <a href="#">🔗</a>  |
| 2020 | UIST | Jiahao Li, Meilin Cui, Jeeun Kim, Xiang 'Anthony' Chen. Romeo: A Design Tool for Embedding Transformable Parts in 3D Models to Robotically Augment Default <a href="#">🔗</a>  |

Functionalities. Proceedings of the UIST '20: The 33rd Annual ACM Symposium on User Interface Software and Technology, 2020.

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|------|-------|---|-------------------|
| 2020 | CHI   | Yuan Liang, Hsuan-Wei Fan, Zhujun Fang, Leiying Miao, Wen Li, Xuan Zhang, Weibin Sun, Kun Wang, Lei He, Xiang Anthony Chen. OralCam: Enabling Self-Examination and Awareness of Oral Health Using a Smartphone Camera. Proceedings of the CHI '20: CHI Conference on Human Factors in Computing Systems, 2020.<br><b>🌟 Best Paper Honorable Mention Award</b> | <a href="#">🔗</a> |
| 2020 | CHI   | Yao Xie, Melody Chen, David Kao, Ge Gao, Xiang 'Anthony' Chen. CheXplain: Enabling Physicians to Explore and Understand Data-Driven, AI-Enabled Medical Imaging Analysis. Proceedings of the CHI '20: CHI Conference on Human Factors in Computing Systems, 2020.   | <a href="#">🔗</a> |
| 2019 | UIST  | Robiot: A Design Tool for Actuating Everyday Objects with Automatically Generated 3D Printable Mechanisms. Jiahao Li, Jeeun Kim, Xiang 'Anthony' Chen. Proceedings of the 32nd Annual ACM Symposium on User Interface Software and Technology, 2019.  | <a href="#">🔗</a> |
| 2019 | SUI   | Runchang Kang, Anhong Guo, Gierad Laput, Yang Li, Xiang 'Anthony' Chen. Minuet: Multimodal Interaction with an Internet of Things. Proceedings of the Symposium on Spatial User Interaction, 2019.  | <a href="#">🔗</a> |
| 2018 | UIST  | Da-Yuan Huang, Teddy Seyed, Linjun Li, Jun Gong, Zhihao Yao, Yuchen Jiao, Xiang 'Anthony' Chen, Xing-Dong Yang. Orecchio: Extending Body-Language through Actuated Static and Dynamic Auricular Postures. Proceedings of the 31st Annual ACM Symposium on User Interface Software and Technology, 2018.   | <a href="#">🔗</a> |
| 2018 | CHI   | Jun Gong, Zheer Xu, Qifan Guo, Teddy Seyed, Xiang 'Anthony' Chen, Xiaojun Bi, Xing-Dong Yang. WrisText: One-handed Text Entry on Smartwatch using Wrist Gestures. Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems, 2018.<br><b>🌟 Best Paper Honorable Mention Award</b>  | <a href="#">🔗</a> |
| 2018 | CHI   | Xiang 'Anthony' Chen, Ye Tao, Guanyun Wang, Runchang Kang, Tovi Grossman, Stelian Coros, Scott E. Hudson. Forte: User-Driven Generative Design. Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems, 2018.   | <a href="#">🔗</a> |
| 2018 | CHI   | Xiang 'Anthony' Chen, Stelian Coros, Scott E. Hudson. Medley: A Library of Embeddables to Explore Rich Material Properties for 3D Printed Objects. Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems, 2018.  | <a href="#">🔗</a> |
| 2018 | CHI   | Byoungkwon An, Ye Tao, Jianzhe Gu, Tingyu Cheng, Xiang 'Anthony' Chen, Xiaoxiao Zhang, Wei Zhao, Youngwook Do, Shigeo Takahashi, Hsiang-Yun Wu, Teng Zhang, Lining Yao. Thermorph: Democratizing 4D Printing of Self-Folding Materials and Interfaces. Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems, 2018.                    | <a href="#">🔗</a> |
| 2017 | TOCHI | Xiang 'Anthony' Chen, Yang Li. Improv: An Input Framework for Improvising Cross-Device Interaction by Demonstration. ACM Trans. Comput. Hum. Interact., 2017  | <a href="#">🔗</a> |
| 2017 | CHI   | <a href="#">🔗</a>   |                   |

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|------|------------|--|-------------------|
|      |            | Anhong Guo, Jeeun Kim, Xiang 'Anthony' Chen, Tom Yeh, Scott E. Hudson, Jennifer Mankoff, Jeffrey P. Bigham. Facade: Auto-generating Tactile Interfaces to Appliances. Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems, 2017.  |                   |
| 2016 | UIST       | Anhong Guo, Xiang 'Anthony' Chen, Haoran Qi, Samuel White, Suman Ghosh, Chieko Asakawa, Jeffrey P. Bigham. VizLens: A Robust and Interactive Screen Reader for Interfaces in the Real World. Proceedings of the 29th Annual Symposium on User Interface Software and Technology, 2016.                       | <a href="#">🔗</a> |
| 2016 | UIST       | Xiang 'Anthony' Chen, Yang Li. Bootstrapping User-Defined Body Tapping Recognition with Offline-Learned Probabilistic Representation. Proceedings of the 29th Annual Symposium on User Interface Software and Technology, 2016.  | <a href="#">🔗</a> |
| 2016 | UIST       | Xiang 'Anthony' Chen, Jeeun Kim, Jennifer Mankoff, Tovi Grossman, Stelian Coros, Scott E. Hudson. Reprise: A Design Tool for Specifying, Generating, and Customizing 3D Printable Adaptations on Everyday Objects. Proceedings of the 29th Annual Symposium on User Interface Software and Technology, 2016. | <a href="#">🔗</a> |
| 2016 | IUI        | Gierad Laput, Xiang 'Anthony' Chen, Chris Harrison. SweepSense: Ad Hoc Configuration Sensing Using Reflected Swept-Frequency Ultrasonics. Proceedings of the 21st International Conference on Intelligent User Interfaces, 2016.   | <a href="#">🔗</a> |
| 2016 | GI         | Vikram Cannanure, Xiang 'Anthony' Chen, Jennifer Mankoff. Twist 'n' Knock: A One-handed Gesture for Smart Watches. Proceedings of the 42nd Graphics Interface Conference, 2016.  | <a href="#">🔗</a> |
| 2016 | CHI        | Adrian A. de Freitas, Michael Nebeling, Xiang 'Anthony' Chen, Junrui Yang, Akshaye Shreenithi Kirupa Karthikeyan Ranithangam, Anind K. Dey. Snap-To-It: A User-Inspired Platform for Opportunistic Device Interactions. Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems, 2016.  | <a href="#">🔗</a> |
| 2015 | UIST       | Gierad Laput, Xiang 'Anthony' Chen, Chris Harrison. 3D Printed Hair: Fused Deposition Modeling of Soft Strands, Fibers, and Bristles. Proceedings of the 28th Annual ACM Symposium on User Interface Software & Technology, 2015.  | <a href="#">🔗</a> |
| 2015 | UIST       | Xiang 'Anthony' Chen, Stelian Coros, Jennifer Mankoff, Scott E. Hudson. Encore: 3D Printed Augmentation of Everyday Objects with Printed-Over, Affixed and Interlocked Attachments. Proceedings of the 28th Annual ACM Symposium on User Interface Software & Technology, 2015.                              | <a href="#">🔗</a> |
| 2015 | Mobile-HCI | Tovi Grossman, Xiang 'Anthony' Chen, George W. Fitzmaurice. Typing on Glasses: Adapting Text Entry to Smart Eyewear. Proceedings of the 17th International Conference on Human-Computer Interaction with Mobile Devices and Services, 2015.  | <a href="#">🔗</a> |
| 2014 | UIST       | Gierad Laput, Robert Xiao, Xiang 'Anthony' Chen, Scott E. Hudson, Chris Harrison. Skin buttons: cheap, small, low-powered and clickable fixed-icon laser projectors. Proceedings of the 27th Annual ACM Symposium on User Interface Software and Technology, 2014.   | <a href="#">🔗</a> |
| 2014 | UIST       | Ken Hinckley, Michel Pahud, Hrvoje Benko, Pourang Irani, François Guimbretière, Marcel Gavriliu, Xiang 'Anthony' Chen, Fabrice Matulic, William Buxton, Andrew   | <a href="#">🔗</a> |



Wilson. Sensing techniques for tablet+stylus interaction. Proceedings of the 27th Annual ACM Symposium on User Interface Software and Technology, 2014.

🏆 **Best Paper Award**

|      |                 |   |
|------|-----------------|---|
| 2014 | UIST            | Xiang 'Anthony' Chen, Julia Schwarz, Chris Harrison, Jennifer Mankoff, Scott E. Hudson. Air+touch: interweaving touch & in-air gestures. Proceedings of the 27th Annual ACM Symposium on User Interface Software and Technology, 2014. <a href="#">↗</a>  |
| 2014 | UIST            | Xiang 'Anthony' Chen, Tovi Grossman, George W. Fitzmaurice. Swipeboard: a text entry technique for ultra-small interfaces that supports novice to expert transitions. Proceedings of the 27th Annual ACM Symposium on User Interface Software and Technology, 2014. <a href="#">↗</a>   |
| 2014 | Mobile-HCI      | Xiang 'Anthony' Chen, Julia Schwarz, Chris Harrison, Jennifer Mankoff, Scott E. Hudson. Around-body interaction: sensing & interaction techniques for proprioception-enhanced input with mobile devices. Proceedings of the 16th international conference on Human-computer interaction with mobile devices & services, 2014. <a href="#">↗</a> |
| 2014 | CHI             | Xiang 'Anthony' Chen, Tovi Grossman, Daniel J. Wigdor, George W. Fitzmaurice. Duet: exploring joint interactions on a smart phone and a smart watch. Proceedings of the CHI Conference on Human Factors in Computing Systems, 2014. <a href="#">↗</a><br>🏆 <b>Best Paper Award</b>  |
| 2013 | GI              | Ken Hinckley, Xiang 'Anthony' Chen, Hrvoje Benko. Motion and context sensing techniques for pen computing. Proceedings of the Graphics Interface 2013, 2013. <a href="#">↗</a>  |
| 2013 | Visual Computer | Bin Pan, Yong Zhao, Xiaoming Guo, Xiang Chen, Wei Chen, Qunsheng Peng. Perception-motivated visualization for 3D city scenes. The Visual Computer. 29.4 (2013): 277-286.  |
| 2012 | MobileHCI       | Xiang 'Anthony' Chen, Nicolai Marquardt, Anthony Tang, Sebastian Boring, Saul Greenberg. Extending a mobile device's interaction space through body-centric interaction. Proceedings of the Mobile HCI '12, 2012. <a href="#">↗</a>   |
| 2012 | Mobile-HCI      | Sebastian Boring, David Ledo, Xiang 'Anthony' Chen, Nicolai Marquardt, Anthony Tang, Saul Greenberg. The fat thumb: using the thumb's contact size for single-handed mobile interaction. Proceedings of the Mobile HCI '12, 2012. <a href="#">↗</a>   |
| 2012 | AVI             | Xiang 'Anthony' Chen, Sebastian Boring, Sheelagh Carpendale, Anthony Tang, Saul Greenberg. Spalendar: visualizing a group's calendar events over a geographic space on a public display. Proceedings of the International Working Conference on Advanced Visual Interfaces, 2012. <a href="#">↗</a>   |
| 2012 | CAD/CG          | Bin Pan, Xiang Chen, Xiaoming Guo, Wei Chen, Qunsheng Peng. Interactive Expressive Illustration of 3D City Scene. Proc. CAD/Graphics 2011.  |

### *Dissertations & These*

|      |        |  |
|------|--------|--|
| 2017 | Ph.D.  | Making Fabrication Real: Fabrication for Real Usage, with Real Objects, by Real People. <a href="#">↗</a><br>Doctoral dissertation, Carnegie Mellon University |
| 2012 | M. Sc. | Body-Centric Interaction with a Screen-based Handheld Device <a href="#">↗</a><br>Master's thesis, University of Calgary                                       |



## *Book Chapters*

- 2021 Yuan Liang, Lei He, Xiang 'Anthony' Chen. Human-Centered AI for Medical Imaging. In: Yang Li, Otmar Hilliges. (eds) Artificial Intelligence for Human Computer Interaction: A Modern Approach. Human-Computer Interaction Series. Springer, Cham. [↗](#)

## *Magazine Articles*

- 2019 Jennifer Mankoff, Megan Hofmann, Xiang 'Anthony' Chen, Scott E. Hudson, Amy Hurst, Jeeun Kim. Consumer-grade fabrication and its potential to revolutionize accessibility. Commun. ACM, 2019. [↗](#)

## *Workshop, Demo, Work-in-Progress, Poster, and Consortium Papers*

- 2023 CHI Hyung-Kwon Ko, Kihoon Son, Hyoungwook Jin, Yoonseo Choi, Xiang 'Anthony' Chen. ChatGPT for Moderating Customer Inquiries and Responses to Alleviate Stress and Reduce Emotional Dissonance of Customer Service Representatives. CHI Gen-AI workshop 2023.
- 2023 CHI Xinyue Gui, Koki Toda, Stela H. Seo, Felix Martin Eckert, Chia-Ming Chang, Xiang 'Anthony' Chen, Takeo Igarashi. A Field Study on Pedestrians' Thoughts toward a Car with Gazing Eyes. Proceedings of the Extended Abstracts of the 2023 CHI Conference on Human Factors in Computing Systems, 2023.
- 2022 MICCAI Hongyan Gu, Mohammad Haeri, Shuo Ni, Christopher Kazu Williams, Neda Zarrin-Khameh, Shino Magaki, Xiang 'Anthony' Chen. Detecting Mitoses with a Convolutional Neural Network for MIDOG 2022 Challenge. MIDOG 2022 Workshop of MICCAI 2022.
- 2020 UIST Eric Balagtas Perez, James King, Yugo H. Watanabe, Xiang 'Anthony' Chen. Counterweight: Diversifying News Consumption. Proceedings of the UIST '20 Adjunct: The 33rd Annual ACM Symposium on User Interface Software and Technology, 2020.
- 2019 IUI Yao Xie, Xiang 'Anthony' Chen, Ge Gao. Outlining the Design Space of Explainable Intelligent Systems for Medical Diagnosis. Proceedings of the Joint Proceedings of the ACM IUI 2019 Workshops co-located with the 24th ACM Conference on Intelligent User Interfaces (ACM IUI 2019), 2019.
- 2019 IUI Benjamin Wagstaff, Chiao Lu, Xiang 'Anthony' Chen. Automatic exam grading by a mobile camera: snap a picture to grade your tests. Proceedings of the 24th International Conference on Intelligent User Interfaces: Companion, 2019.
- 2018 CHI Ye Tao, Jianzhe Gu, Byoungkwon An, Tingyu Cheng, Xiang 'Anthony' Chen, Xiaoxiao Zhang, Wei Zhao, Youngwook Do, Teng Zhang, Lining Yao. Demonstrating Thermorph: Democratizing 4D Printing of Self-Folding Materials and Interfaces. Proceedings of the Extended Abstracts of the 2018 CHI Conference on Human Factors in Computing Systems, 2018.
- 2016 TEI Xiang 'Anthony' Chen. Making Fabrication Real. Proceedings of the 29th Annual Symposium on User Interface Software and Technology, 2016.
- 2016 TEI

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|      |     | Xiang 'Anthony' Chen. Making Fabrication Real. Proceedings of the 29th Annual Symposium on User Interface Software and Technology, 2016.   |
| 2015 | CHI | Anhong Guo, Xiang 'Anthony' Chen, Jeffrey P. Bigham. ApplianceReader: A Wearable, Crowdsourced, Vision-based System to Make Appliances Accessible. Proceedings of the 33rd Annual ACM Conference Extended Abstracts on Human Factors in Computing Systems, 2015. |
| 2012 | TEI | Xiang 'Anthony' Chen. Body-centric interaction with mobile devices. Proceedings of the 6th International Conference on Tangible and Embedded Interaction 2012, 2012.   |

## Patents

|      |  |  |
|------|--|--|
| 2022 |  | Gierad Laput, Christopher Harrison, and Xiang 'Anthony' Chen. Method of Fabricating Soft Fibers Using Fused Deposition Modeling. U.S. Patent Application 15/772,193, issued filed April 5, 2022. <a href="#">↗</a> |
| 2019 |  | Yang Li, and Xiang 'Anthony' Chen. Cross-device interaction through user-demonstrated gestures. U.S. Patent 10,234,953, issued March 19, 2019. <a href="#">↗</a>   |
| 2018 |  | Techniques For Interacting With Wearable Devices. Tovi Grossman, Xiang 'Anthony' Chen, George Fitzmaurice. U.S. Patent 10,082,953, issued September 25, 2018. <a href="#">↗</a>                                    |
| 2015 |  | Techniques For Interacting With Handheld Devices. Tovi Grossman, Xiang 'Anthony' Chen, George Fitzmaurice. U.S. Patent 20,150,153,928, issued June 4, 2015. <a href="#">↗</a>                                      |
| 2015 |  | Hrvoje Benko, Xiang Chen, and Kenneth Paul Hinckley. Motion and context sharing for pen-based computing inputs. U.S. Patent 9,201,520, issued December 1, 2015. <a href="#">↗</a>                                  |

## Funding

|           |           |   |
|-----------|-----------|---|
| 2023      | \$20,000  | Salesforce gift funding<br>Xiang 'Anthony' Chen (Sole PI)   |
| 2022-2025 | \$510,000 | ONR Young Investigator Award: Knowledge Extraction from Human Interaction with AI<br>Xiang 'Anthony' Chen (Sole PI) |
| 2022-2023 | \$50,000  | Intel Rising Star Award<br>Xiang 'Anthony' Chen (Sole PI)   |
| 2022-2023 | \$60,000  | Google Research Scholar Award<br>Xiang 'Anthony' Chen (Sole PI)   |
| 2022      | \$50,000  | Adobe gift funding<br>Xiang 'Anthony' Chen (Sole PI)  |
| 2021-2026 | \$548,111 | NSF CAREER: Expanding the Interaction Bandwidth between Physicians and AI<br>Xiang 'Anthony' Chen (Sole PI)         |

|           |           |   |
|-----------|-----------|---|
| 2021      | \$20,000  | Adobe gift funding<br>Xiang 'Anthony' Chen (Sole PI)  |
| 2021-2022 | \$19,500  | Hellman Fellowship: Enabling an Ecosystem of Human-Centered Medical AI<br>Xiang 'Anthony' Chen (Sole PI)  |
| 2019      | \$5,000   | Meta Technology Pte. Ltd. (Singapore) gift funding<br>Xiang 'Anthony' Chen (Sole PI)  |
| 2019      | \$7,500   | Adobe gift funding<br>Xiang 'Anthony' Chen (Sole PI)  |
| 2019-2021 | \$200,460 | NSF CRII: CHS: Techniques for Helping Domain Experts Understand and Improve Models Underlying Intelligent Systems<br>Xiang 'Anthony' Chen (Sole PI) |

## Press

### *Research Conducted or Led by Me*

|      |  |
|------|--|
| 2021 | Let's Redesign the Laptop for a Work-From-Home Era <a href="#">↗</a><br>Wall Street Journal          |
| 2019 | Turn any object into a robot using this program and a 3D printer <a href="#">↗</a><br>New Scientists |
| 2019 | Turn any object into a robot using this program and a 3D printer <a href="#">↗</a><br>ACM TechNews   |
| 2015 | 3D print extra bits for old objects to help extend their life <a href="#">↗</a><br>New Scientists    |

### *Research Collaborated with Others*

|      |   |
|------|---|
| 2016 | SweepSense (collaborated with Gierad Laput)<br>R&D Magazine, MIT Technology Review  |
| 2016 | Snap to It (collaborated with Adrian de Freitas)<br>MIT Technology Review   |
| 2015 | 3D Printed Hair (collaborated with Gierad Laput)<br>Fast Company, CNET, Gizmodo, Hackaday, MIT Technology Review, Engadget, Plastics Today, New York Magazine |
| 2014 | Skin Buttons (collaborated with Gierad Laput)<br>New York Times, TechCrunch, WIRED, Fast Company, New Scientist, Gizmodo, CBC                                 |
| 2014 | Tablet+Stylus Interaction (collaborated with Ken Hinckley)<br>FastCo Design's #2 User Interface Innovation of 2014  |
| 2012 | The Fat Thumb (collaborated with Sebastian Boring)<br>PC World, Engadget, Gizmodo, etc.   |

## Talks

- 2023 Human-AI Collaborative Systems for the Future of Work  
Intel (hosted by Scott Buck)
- 2022 Thriving in an Information-Rich World through Human-AI Collaboration  
Department of Computer Science, University of Tokyo (hosted by Takeo Igarashi)  
Future University Hakodate (hosted by Hironari Yoshida)
- 2022 Expanding the Interaction Bandwidth Between Human and AI  
Center for Psychological Sciences at Zhejiang University (hosted by Liezhong Ge)
- 2020 Expanding the Interaction Bandwidth Between Human and AI  
Snap Research, U.S. (hosted by Rajan Vaish)
- 2020 Expanding the Interaction Bandwidth Between Human and AI  
Salesforce Research (hosted by Wenhao Liu)
- 2020 Expanding the Interaction Bandwidth Between Human and AI  
Media Arts and Technology Seminar, UC Santa Barbara
- 2019 Expanding the Interaction Bandwidth Between Human and AI  
Tsinghua University (hosted by Chun Yu)  
Peking University (hosted by Yizhou Wang)  
Fudan University (hosted by Tun Lu)  
Tongji University (hosted by Yang Shi)  
Sun Yat-Sen University  
South China University of Technology (hosted by C. L. Philip Chen)  
Xiamen University (hosted by Junfeng Yao)
- 2019 Designing Explainable Intelligent Systems  
The 5th Summer School on Computational Interaction, New York, U.S.
- 2018 Computational Tool Support for Mass Customization  
FXPAL, Palo Alto, U.S. (hosted by Daniel Avrahami)
- 2017 Computational Design and Fabrication to Augment Everyday Objects  
Dartmouth College, Hanover, U.S. (hosted by Xing-Dong Yang)
- 2016 Body-Centric Interaction with Mobile and Wearable Devices  
Body Hacking Con 2016, Austin, U.S.
- 2015 Enabling End-User Creativity with New Fabrication Techniques  
X-Studio, Tsinghua University, Beijing, China (hosted by Ying-Qing Xu)
- 2015 Duet: Exploring Joint Interactions on a Smart Phone and a Smart Watch  
Midwest UX 2015, Pittsburgh, U.S.
- 2015 Snap-to-It: Using Mobile Cameras To Opportunistically Connect & Interact With An Internet Of Things  
QualComm, San Diego, U.S

|      |   |
|------|---|
| 2013 | Motion and Context Sensing for Pen Computing<br>David R. Cheriton School of Computer Science, University of Waterloo, Waterloo, Canada (hosted by Daniel Vogel) |
| 2013 | Motion and Context Sensing for Pen Computing<br>Dynamic Graphics Project, University of Toronto, Toronto, Canada (hosted by Daniel Wigdor)                      |
| 2013 | Motion and Context Sensing for Pen Computing<br>Autodesk Research, Toronto, Canada (hosted by Tovi Grossman)  |
| 2013 | Around-Body Interaction<br>Hasso-Plattner-Institut, Berlin, Germany (hosted by Patrick Baudisch)  |
| 2013 | Around-Body Interaction<br>QualComm, San Diego, U.S.  |

## Teaching & Mentoring

### *Course Instructor and Teaching Assistant*

|           |           |   |
|-----------|-----------|---|
| 2020-Now  | ECE 188   | Interactive & Applied Machine Learning <a href="#">↗</a><br>ECE Department, UCLA                |
| 2019-Now  | ECE M119  | Fundamental of Networked Embedded Systems <a href="#">↗</a><br>ECE Department, UCLA             |
| 2018-Now  | ECE 209AS | Human-Computer Interaction <a href="#">↗</a><br>ECE Department, UCLA                            |
| 2015-2015 | 05430     | Programming Usable Interfaces<br>School of Computer Science, Carnegie Mellon University         |
| 2014-2014 | 05410     | User-Centered Research and Evaluation<br>School of Computer Science, Carnegie Mellon University |
| 2010-2010 | CPSC 481  | Human Computer Interaction I<br>Department of Computer Science, University of Calgary           |

### *Ph.D. Students Mentored*

|      |                            |
|------|----------------------------|
| 2022 | Youngseung Jeon (UCLA ECE) |
| 2020 | Xingyu Liu (UCLA ECE)      |
| 2019 | Ruolin Wang (UCLA ECE)     |
| 2019 | Noyan Evirgen (UCLA ECE)   |
| 2018 | Hongyan Gu (UCLA ECE)      |
| 2018 | Jiahao Li (UCLA MAE)       |

### *Master Students Mentored*

2016-Now    Matthew Waliman (UCLA ECE)  
Wayne Zhang (UCLA ECE)  
Roy Jara (UCLA ECE)  
Yifan Xu (UCLA ECE)  
Yao Xie (UCLA ECE)  
Yunpeng Ding (UCLA ECE)  
Ritam Sarmah (UCLA CS)  
Carlo Rebanal (UCLA ECE)  
Amirali Omidfar (UCLA ECE)  
Ximeng Liu (UCLA ECE)  
Nicolas Cheng (UCLA ECE)  
Vikram Cannanure (CMU CS)

### *Undergraduate Students Mentored*

2017-Now    Faustine Wang (UCLA CogSci)  
Ivy Kang (UCLA CogSci)  
David Xiong (UCLA CS)  
Austin Ma (UCLA CogSci)  
Shirley Tang (UCLA CogSci)  
Alexiy Samoylov (UCLA ECE)  
James King (UCLA CS)  
Eric Perez (UCLA ECE)  
Grace Zhao (UCLA CS)  
Jingbin Huang (UCLA ECE)  
Melody Chen (UCLA CS)  
David Kao (UCLA CS)  
Ben Wagstaf (UCLA CS)  
Joseph Lu (UCLA CS)  
Zixuan Chen (UCLA CS)  
Jordan Combitsis (UCLA CS)  
Phipson Lee (UCLA CogSci/CS)  
Runchang Kang (CMU Architecture)

### *Intern & Visiting Students Mentored*

2019-Now    Naoto Nishida (University of Tokyo)  
Zihan Yan (Zhejiang University)  
Mina Huh (KAIST)  
Hsuan-wei Fan (Tsinghua University)  
Yudai Tanaka (University of Tokyo)  
Xiao Fan (Zhejiang University)  
Bowen Zhang (Zhejiang University)

## **Service**

### *Ph.D. Thesis Committee*

2020-Now    Jeffrey Jiang (UCLA ECE)  
                 Tonmoy Monsoor (UCLA ECE)  
                 Mahmoud Essalat (UCLA ECE)  
                 Vikranth Jeyakumar (UCLA ECE)  
                 Haisong Lin (UCLA ECE)  
                 Migyeong Gwak (UCLA CS)  
                 Weinan Song (UCLA ECE)

### *Master Thesis Committee*

2020-Now    Oyku Bozkurt (UCLA ECE)  
                 Steve Mendoza (UCLA ECE)  
                 Siyou Pei (UCLA ECE)  
                 Swapnil S. Saha (UCLA ECE)  
                 Amirali Omidfar (UCLA ECE)  
                 Akash Singh (UCLA ECE)

### *Pre-college Education & Outreach*

2020           Judge for International Science and Engineering Fair (for high school students)

### *Review Panel*

2023-2023    Andy Hill CARE Fund  
  
2021-2023    National Science Foundation

### *Editorial Board*

2020-2020    ISS            Proceedings of the ACM on Human-Computer Interaction

### *Program Committee*

2021-2022    CSCW          ACM Conference on Computer-Supported Cooperative Work and Social Computing  
2019-2023    CHI            ACM CHI Conference on Human Factors in Computing Systems  
2019-2021    UIST          ACM Symposium on User Interface Software and Technology  
2019-2019    IUI            ACM International Conference on Intelligent User Interfaces  
2018-2019    International Symposium of Chinese CHI  
2018-2018    ISS            ACM International Conference on Interactive Surfaces and Spaces  
2016-2016    CHI LBW      ACM CHI Conference on Human Factors in Computing Systems Late Breaking Work

### *Organizing Committee*

2021-2021    UIST          Doctoral Consortium Chair  
2020-2020    UIST          Proceeding Chair



2020-2020    ECE ARR    UCLA ECE Department Annual Research Review Co-Chair

2019-2020    ISS    Publicity Chair

*External Reviewer*

2013-Now    ACM CHI Conference on Human Factors in Computing Systems  
ACM Symposium on User Interface Software and Technology  
ACM Conference on Computer-Supported Cooperative Work and Social Computing  
ACM Transactions on Computer-Human Interaction  
International Conference on Computer Graphics and Interactive Techniques  
International Conference On Human-Computer Interaction With Mobile Devices & Services  
ACM International Conference on Tangible, Embedded and Embodied Interaction  
ACM International Symposium on Wearable Computers  
ACM International Joint Conference on Pervasive and Ubiquitous Computing  
Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies  
ACM SIGCHI Conference on Designing Interactive Systems  
ACM International Conference on Interactive Tabletops and Surfaces  
Annual Conference on Graphics Interface  
International Conference on Mobile and Ubiquitous Multimedia  
Annual Symposium on Computer-Human Interaction in Play  
ACM Symposium on Spatial User Interaction  
ACM International Conference on Intelligent User Interfaces  
ACM International Conference on Interactive Media Experiences  
ACM SIGCHI Symposium on Engineering Interactive Computing Systems  
Interaction Design and Children Conference  
IEEE Pervasive Computing  
International Journal of Human-Computer Studies  
International Journal of Human-Computer Interaction  
Annual Conference of the European Association for Computer Graphics  
Computers & Graphics  
Assistive Technology  
IEEE Transactions on Mobile Computing  
ACM Conference on Creativity & Cognition  
NPJ Digital Medicine

*Special Recognition as a Reviewer*

2014-Now    CHI 2015-2016  
              UIST 2015-2016  
              UbiComp 2016  
              CHI PLAY 2014