

# Jeeun Kim – Curriculum Vitae

Assistant professor

Department of Computer Science & Engineering

College of Engineering, Texas A&M University

Director of HCIed Lab ([link](#))

Co-founder of TxHCI Seminar Series ([link](#))

Founding member of VIVID Lab, Texas A&M Institute of Data Science (TAMIDS, [link](#))

## Education

### **Ph.D., Computer Science, 2019**

University of Colorado, Boulder, CO

Thesis: Modular Systems for Digital Fabrication: Toward a Collaborative Partnership between Humans and Machines

Chair: Tom Yeh, Committee: Mark D. Gross, Jennifer Mankoff, Shaun Kane, Daniel Ashbrook

### **Visiting Ph.D. Student Scholar, 2016**

Carnegie Mellon University, Pittsburgh, PA

Human-Computer Interaction Institute (HCII), School of Computer Science

Host: Jennifer Mankoff, Scott Hudson

### **M.S., Computer Science, 2015**

University of Colorado, Boulder

### **B.S., Computer Engineering, 2010**

Korea Aerospace University, South Korea

Summa Cum Laude (Top 1% of class)

## Employment

### **Texas A&M University, 2019 - present**

Assistant Professor, Computer Science & Engineering

### **Adobe, 2018**

Research Intern, Creative Intelligence Lab (Mentor: Qingnan (James) Zhou and Wilmot Li)

### **Ericsson, 2017**

Research Intern, Advanced Media Research Group (Mentor: Alvin Jude Hari Haran)

### **JumpCloud Inc., 2013**

S/W Engineering Intern (Mentor: David Campbell, KC Berg)

### **Korea Telecom (KT), Seoul, Korea, 2010-2012**

Project Manager, New Business Strategy Division, The Head Office (2011-2012)

S/W Engineer, Fast Incubation Team, Enterprise Business Division (2010)

### **LG, Seoul, Korea, 2009**

Research Intern, HCI Group, Advanced R&D Center

## Refereed Publications

\*Denotes Kim's advisee at Texas A&M

### Journals

- [J.5] Nahyun Kwon\*, Tong Sun, Yuyang Gao, Xu Wang, Liang Zhao, Sungsoo Ray Hong, [Jeeun Kim](#). *3DFIX: Improving Remote Novices' 3D Printing Troubleshooting Experience through Human-AI Collaboration Design*. (2024). In Proceedings of the ACM on Human-Computer Interaction (CSCW, To appear)
- [J.4] Abul Al Arabi\*, Xue Wang, Yang Zhang, & [Jeeun Kim](#). *E3D: 3D Printing Energy Harvesting Attachments from Everyday Kinetic Interactions*. (2023). In Proceedings of the ACM on Interactive, Mobile, Wearable, and Ubiquitous Technologies (UbiComp, To appear)
- [J.3] Aryabhat Darnal, Zaryab Shahid, Himani Deshpande\*, [Jeeun Kim](#), Anastasia Muliana. *Tuning Mechanical Properties of 3D Printed Composites with PLA:TPU Programmable Filaments*. (2023). In Composite Structures, Elsevier. Impact Factor: 6.603
- [J.2] Jason Orlosky, Misha Sra, Kenan Bektaş, Huaishu Peng, [Jeeun Kim](#), Nataliya Kos'myna, Tobias Hollerer, Anthony Steed, Kiyoshi Kiyokawa, Kaan Akşit. *Telelife: The Future of Remote Living*. (2022). In Frontiers in Virtual Reality. Impact Factor: 3
- [J.1] Jennifer Mankoff, Megan Hofmann, Xiang 'Anthony' Chen, Scott E Hudson, Amy Hurst, [Jeeun Kim](#). *Consumer-grade fabrication and its potential to revolutionize accessibility*. (2019). In Communications of the ACM 62 (CACM'19). Impact Factor: 14.06

### Peer-reviewed Full Conference Proceedings

- [C.27] Qianqian Shen, Yunhan Zhao, Yanan Li, Nahyun Kwon\*, [Jeeun Kim](#), Shu Kong. *Instance Detection via Instance Representation as NeRF*. In Proceedings of Advances in Neural Information Processing Systems. (NeurIPS'23 Dataset & Benchmark Track, Acceptance rate: 32.7%)
- [C.26] Raf Ramasker, Danny Leen, [Jeeun Kim](#), Kris Luyten, Steven Houben, Tom Veuskens. *Measurement Patterns: User-Oriented Strategies for Dealing with Measurements and Dimensions in Making Processes*. In Proceedings of the 41st Annual ACM SIGCHI Conference on Human Factors in Computing Systems. *Unitless Fabrication*. (CHI'23, Acceptance rate: 28%)
- [C.25] Justin Moon, Haeun Lee, [Jeeun Kim](#), & Andrea Bianchi. *ShrinkCells: Localized and Sequential Shape-Changing Actuation of 3D-Printed Objects via Selective Heating*. In Proceedings of the ACM Annual Symposium on User Interface Software and Technology (UIST'22, Acceptance rate: 25%)
- [C.24] Chen Liang\*, Anhong Guo, & [Jeeun Kim](#). *CustomizAR: Facilitating Interactive Exploration and Measurement of 3D Customizable Adaptive Designs*. In Proceedings of ACM Conference on Designing Interactive Systems (DIS'22, Acceptance rate: 21%)
- [C.23] Abul Al Arabi\*, Jiahao Li, Xiang 'Anthony' Chen, & [Jeeun Kim](#). *Mobiot: Augmenting everyday objects into moving IoT devices using 3D printed attachments*. In Proceedings of the 40th Annual ACM SIGCHI Conference on Human Factors in Computing Systems. (CHI'22, Acceptance rate: 24.6%)
- [C.22] Jiahao Li, Alexis A Samoylov, [Jeeun Kim](#), & Xiang 'Anthony' Chen. *Roman: Making Everyday Objects Robotically Manipulable with 3D-Printable Add-on Mechanisms*. In Proceedings of the 40th Annual ACM SIGCHI Conference on Human Factors in Computing Systems. (CHI'22, Acceptance rate: 24.6%)
- [C.21] Nahyun Kwon\*, Himani Deshpande\*, Md Kamrul Hasan, Aryabhat Darnal\*, & [Jeeun Kim](#). *Multi-ttatch: Techniques to Enhance Multi-material Attachments in Low-cost FDM 3D Printing*. In Proceedings of the 6th ACM Symposium on Computational Fabrication (SCF'21)

- [C.20] Himani Deshpande\*, Haruki Takahashi & Jeeun Kim. *EscapeLoom: Fabricating New Affordances for Hand Weaving*. In Proceedings of the 39th Annual ACM SIGCHI Conference on Human Factors in Computing Systems (CHI'21, Acceptance rate: 26%)
- [C.19] Nahyun Kwon\*, Chen Liang\*, & Jeeun Kim. *3D4ALL: Toward an Inclusive Pipeline to Classify 3D Contents*. In Proceedings of Transparency and Explanations in Smart Systems (TESS'21)
- [C.18] Alexander Berman\*, Joshua Howell, Ketan Thakare, Francis Quek, & Jeeun Kim. *HowDIY: Towards Meta-Design Tools to Support Anyone to 3D Print Anywhere*. In Proceedings of the 26th Annual Conference on Intelligent User Interfaces (IUI'21, Acceptance rate: 27%)
- [C.17] Jeeun Kim, James Zhou, Amanda Ghassaei, Xiang 'Anthony' Chen. *OmniSoft: A Design Tool for Soft Objects by Examples*. In Proceedings of International Conference on Tangible, Embedded, and Embodied Interaction (TEI'21, Acceptance rate: 29%)
- [C.16] Alexander Berman\*, Francis Quek, Robert Woodward, Osazuwa Okundaye, Jeeun Kim. *"Anyone Can Print": Supporting Collaborations with 3D Printing Services to Empower Broader Participation in Personal Fabrication*. In Proceedings of ACM 11th Nordic Conference on Human-Computer Interaction (NordiCHI'20, Acceptance rate: 24%)
- [C.15] Haruki Takahashi, Parinya Punpongsanon & Jeeun Kim. *Programmable Filament: Printed Filaments for Multi-material 3D Printing*. In Proceedings of the ACM Annual Symposium on User Interface Software and Technology (UIST'20, Acceptance rate: 21%) **SIGCHI Best of UIST Paper Honorable Mention Award**
- [C.14] Jiahao Li, Meilin Cui, Jeeun Kim, & Xiang 'Anthony' Chen. *Romeo: A Design Tool for Embedding Transformable Parts in 3D Models to Robotically Augment Default Functionality*. In Proceedings of the ACM Annual Symposium on User Interface Software and Technology (UIST'20, Acceptance rate: 21%)
- [C.13] Jianhao Li, Jeeun Kim, & Xiang 'Anthony' Chen. *Robiot: A Design Tool for Actuating Everyday Objects with Automatically Generated 3D Printable Mechanisms*. In Proceedings of the ACM Annual Symposium on User Interface Software and Technology (UIST'19, Acceptance rate: 24%)
- [C.12] Haruki Takahashi & Jeeun Kim. *3D Printed Fabric: Techniques for Design and 3D Weaving Programmable Textiles*. In Proceedings of the ACM Annual Symposium on User Interface Software and Technology (UIST'19, Acceptance rate: 24%)
- ===== **After joining A&M** =====
- [C.11] Haruki Takahashi & Jeeun Kim. *3D Pen + 3D Printer: Exploring the Role of Human and Fabrication Machine in Creative Making*. In Proceedings of the 37th Annual ACM SIGCHI Conference on Human Factors in Computing Systems (CHI'19, Acceptance rate: 23%)
- [C.10] Clement Zheng, Jeeun Kim, Daniel Leithinger, Mark D Gross, & Ellen Yi-Luen Do. *Mechamagnets: Designing and Fabricating Haptic and Functional Physical Inputs with Embedded Magnets*. In Proceedings of International Conference on Tangible, Embedded, and Embodied Interaction (TEI'19, Acceptance rate: 25%)
- [C.9] Jeeun Kim, Clement Zheng, Haruki Takahashi, Mark D Gross, Daniel Ashbrook, & Tom Yeh. *Compositional 3D Printing: Expanding & Supporting Workflows Towards Compositional 3D Printing*. In Proceedings of 3<sup>rd</sup> ACM Symposium on Computational Fabrication (SCF'18, Acceptance rate: 31%)
- [C.8] Jeeun Kim & Tom Yeh. *CraftML: 3D Modeling is Web Programming*, In Proceedings of the 36th Annual ACM SIGCHI Conference on Human Factors in Computing Systems (CHI'18, Acceptance rate: 25%)

- [C.7] [Jeeun Kim](#), Anhong Guo, Tom Yeh, Scott E. Hudson, & Jennifer Mankoff. *Understanding Uncertainty in Measurement and Accommodating its Impact in 3D Modeling and Printing*, In Proceedings of ACM Conference on Designing Interactive Systems (DIS'17, Acceptance rate: 22%)
- [C.6] Anhong Guo, [Jeeun Kim](#), Xiang 'Anthony' Chen, Tom Yeh, Scott E. Hudson, Jennifer Mankoff, & Jeffrey P. Bigham. *Façade: Auto-generating Tactile Interfaces to Appliances*, In Proceedings of the 35th Annual ACM SIGCHI Conference on Human Factors in Computing Systems (CHI'17, Acceptance rate: 25%)
- [C.5] Hyunjoo Oh, [Jeeun Kim](#), Cory Morales, Mark D. Gross, Michael Eisenberg, & Sherry Hsi. *FoldMecha: Exploratory Design and Engineering of Mechanical Papercraft*. In Proceedings of International Conference on Tangible, Embedded, and Embodied Interaction (TEI'17, Acceptance rate: 27%)
- [C.4] Xiang 'Anthony' Chen, [Jeeun Kim](#), Stelian Coros, Jennifer Mankoff, & Scott E. Hudson, *Reprise: A Design Tool for Specifying, Generating, and Customizing 3D Printable Adaptations on Everyday Objects*, In Proceedings of Annual Symposium on User Interface Software and Technology (UIST'16, Acceptance rate: 21%)
- [C.3] Claudia D. Roquet, [Jeeun Kim](#), & Tom Yeh, *3D Folded PrintGami: Transforming Passive 3D Printed Objects to Interactive by Inserted Paper Origami Circuits*, In Proceedings of ACM Conference on Designing Interactive Systems, (DIS'16, Acceptance rate: 26%)
- [C.2] [Jeeun Kim](#), & Tom Yeh, *Toward 3D-Printed Movable Tactile Pictures for Children with Visual Impairments*, In Proceedings of the 33rd Annual ACM SIGCHI Conference on Human Factors in Computing Systems (CHI'15, Acceptance rate: 23%)
- [C.1] Abigale Stangl, [Jeeun Kim](#), Tom Yeh, *3D Printed Tactile Picture Books for Children with Visual Impairments: A Design Probe*, In Proceedings of Conference on Interaction Design and Children (IDC'14, Acceptance rate: 30%)

### **Lightly Reviewed Short Papers/Extended Abstracts/Conference Presentations**

- [E22] Aryabhat Darnal, Poluri Kamal, Himani Deshpande\*, [Jeeun Kim](#), Kalantar Negar, and Anastasia Muliana, *An exploration of 3D printed freeform kerf structures*. Proceedings of SPIE Smart Structures and Nondestructive Evaluation Meeting, Long Beach CA, March 2023
- [E.21] Abul Al Arabi\* & [Jeeun Kim](#). *Augmenting Everyday Physical Interfaces using Personal Fabrication*. (Siggraph Asia'22 Emerging technology)
- [E.20] Haruki Takahashi, & [Jeeun Kim](#). *Designing a Hairy Haptic Display using 3D Printed Hairs and Perforated Plates*. In Proceedings of Adjunct Annual Symposium on User Interface Software and Technology (UIST'22)
- [E.19] Himani Deshpande\*, Clement Zheng, Jinsil Hawryoung Seo, Courtney Starrett, & [Jeeun Kim](#). *Hands-on Exploration of Hybrid 4D Printing Design Space* (SIGGRAPH'22 Labs)
- [E.18] Kenan Bektaş, [Jeeun Kim](#), Huaishu Peng, Kiyoshi Kiyokawa, Anthony Steed, Tobias Höllerer, Nataliya Kos'myna, Misha Sra, Jason Orlosky, Kaan Akşit. *Telelife: A Vision of Remote Living in 2035*. In Proceedings of Extended Abstracts of the 40th Annual ACM Conference on Human Factors in Computing Systems (CHI'22)
- [E.17] Qian Lu\*, Aryabhat Darnal, Haruki Takahashi, Anastasia Muliana, & [Jeeun Kim](#). *User-Centered Property Adjustment with Programmable Filament*. In Proceedings of Extended Abstracts of the 40th Annual ACM Conference on Human Factors in Computing Systems (CHI'22)

[E.16] Himani Deshpande\*, Clement Zheng, Courtney Starrett, Jinsil Hawryoung Seo, & Jeeun Kim. *Fab4D: An Accessible Hybrid Approach for Programmable Shaping and Shape-Changing Artifacts*. In Proceedings of 16<sup>th</sup> International Conference on Tangible, Embedded, and Embodied Interaction (TEI'22)

[E.15] Aryabhat Darnal\*, Zaryab Shahid, Himani Deshpande\*, Jeeun Kim, & Anastasia Muliana. *An Investigation on the Mechanical Properties of a 3D Printed TPU/PLA Programmable Filament*. 7<sup>th</sup> International Conference on Mechanics of Composites (MechComp7)

===== *After joining A&M* =====

[E.14] Andrew J Mertens, Mary Roszel, Jeeun Kim, Tom Yeh, & Eliana Colunga. *Parent-Child Interactions and Word Learning: Introducing vocabulary in different play contexts*. The 41st Annual Meeting of the Cognitive Science Society (CogSci'19)

[E.13] Jeeun Kim, Haruki Takahashi, Homey Miyashita, Michelle Annett, & Tom Yeh. *Machines as Co-Designers: A Fiction on the Future of Human-Fabrication Machine Interaction*, (alt.chi) In Proceedings of Extended Abstracts of the 35<sup>th</sup> Annual ACM SIGCHI Conference on Human Factors in Computing Systems (CHI'17)

[E.12] Jeeun Kim. *Shall We Fabricate? Collaborative, Bidirectional, Incremental Fabrication*, In Proceedings of Adjunct Annual Symposium on User Interface Software and Technology (UIST'17), Quebec, Canada

[E.11] Jeeun Kim, Abigale Stangl, & Tom Yeh. *Learning Underlying Principles of Physicalization by Tangible, Embodied, and Iterative Fabrication*, Presented at Pedagogy and Physicalization: Designing Learning Activities around Physical Data Representations Workshop on DIS'17, Edinburgh, UK

[E.10] Jeeun Kim. *Co-Designer Robot: Envisioning Human-Fabrication Machine Interaction (HFI)* – Presented at What Actors can Teach Robots Workshop on CHI'17, Denver, CO

[E.9] Anhong Guo, Jeeun Kim, Xiang 'Anthony' Chen, Tom Yeh, Scott E. Hudson, Jennifer Mankoff, & Jeffrey P. Bigham, *Façade: Auto-generating Tactile Interfaces to Appliances*, In Proceedings of 18th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS'16)

[E.8] Jeeun Kim, Swamy Ananthanarayan. & Tom Yeh, *Seen Music: Ambient Music Data Visualization for Children with Hearing Impairments*, In Proceedings of the Interaction Design and Children (IDC'15)

[E.7] Jeeun Kim, Hyunjoo Oh, & Tom Yeh, *A Study to Empower Children to Design Movable Tactile Pictures for Children with Visual Impairments*, In Proceedings of International Conference on Tangible, Embedded, and Embodied Interaction (TEI'15)

[E.6] Jeeun Kim, Abigale Stangl, & Tom Yeh, *Using LEGO to Model 3D Tactile Picture Books by Sighted Children for Blind Children*, In Proceedings of ACM symposium on Spatial user interaction (SUI'14)

[E.5] Jeeun Kim, Michael Kasper, Tom Yeh, & Nikolas Correll, *SikuliBot: Automating Physical User Interface Using Images*, In Proceedings of Adjunct Annual Symposium on User Interface Software and Technology (UIST'14)

[E.4] Abigale Stangl, Jeeun Kim, & Tom Yeh, *Technology to Support Emergent Literacy Skills in Young Children with Visual Impairments*, In Proceedings of Extended Abstracts of the 32nd Annual ACM Conference on Human Factors in Computing Systems (CHI'14)

[E.3] Jeeun Kim, Abigale Stangl, Ann Eisenberg, & Tom Yeh, *Evaluating Tactile User Experience with Tactile Picture Books for Children with Visual Impairment* – Presented at "Touch Me", Tactile Evaluation Methods Workshop on CHI'14

[E.2] [Jeeun Kim](#), Abigale Stangl, Ann Eisenberg, & Tom Yeh, *Tactile Picture Books for Young Children with Visual Impairment*, International Conference on Tangible, Embedded, and Embodied Interaction (TEI'14)

[E.1] [Jeeun Kim](#), Abigale Stangl, Ann Eisenberg, & Tom Yeh, *Printing Tactile Picture Books for Blind Children*, ACM Grace Hopper Celebration 2013 (GHC'13)

## Patents

[P.2] [Jeeun Kim](#), Chae Eun Oh, Hyejung Kim, *Method and system for distributing business application and content for mobile equipment using application store and wireless AP*, Patents, United States Patent and Trademark Office, USA (US Patent 9,092,812)

[P.1] [Jeeun Kim](#), Chae Eun Oh, Hyejung Kim, *Method and system for distributing business application and content for mobile equipment using application store and wireless AP*, Patents, Korea Patent and Trademark Office, Korea

## Other Publications (Full papers Archived)

[o.1] Chen Liang\*, Nahyun Kwon\*, & [Jeeun Kim](#). *Creative Compensation (CC): Future of Jobs with Creative Works in 3D Printing*. (arXiv preprint arXiv:2111.04840)

## Grants & Funding

### External

[g.9] NSF, FW-HTF-RM: The future of Teleoperation in Construction Workplaces (Co-PI) \$1,396,612 (Responsible for \$100,000, 01/2021 – 12/2024), PI: Youngjib Ham (Construction Science), Other Co-PIs: S. Camille Peres (Environmental & Occupational Health), Thomas Ferris (Industrial & Systems Engineering), Mindy Bergman (Psychology)

[g.8] NSF, HCC: *Small: Collaborative Research: 3D Printing Visual Capabilities using Light Transfer* (PI) \$599,750 (Responsible for \$399,750, 09/2022 – 08/2025), Co-PI: Yang Zhang (UCLA)

[g.7] NSF, FW-HTF-P: *Upskilling Craftspeople to Prepare for the Future of End-user Driven Manufacturing* (PI) \$150,000 (09/2022 – 12/2023) Co-PIs: Anastasia Muliana (Mechanical Engineering), Courtney Starrett (Visualization), Rebecca Schlegel (Psychology)

[g.6] Ralph E. Pow Junior Faculty Enhancement Award (Sole-PI) \$10,000

[g.5] Adobe Unrestricted Gift (Sole-PI) \$2,500

### Internal

[g.4] AVPA Arts Research Grant. *Increasing audience engagement and interactions during immersive performances via Augmented Reality* (Co-PI) \$7,500

[g.3] PVFA Interdisciplinary Collaboration Grant. *Multi-user, accessible multi-sensory Augmented Reality experiences, and workshops to increase engagement and interactions during immersive performances* (Co-PI) \$15,000

[g.2] Texas A&M Institute of Data Science (TAMIDS). *VIVID Lab* (Co-PI) \$300,000 **appx.**

[g.1] T3: Triad Excellence Award. *Produce New Material Properties By Low-Cost 3D Printing Techniques* (PI) \$32,000

## Awards & Honors

2021, Ralph E. Powe Junior Faculty Enhancement Award

2020, ACM UIST'20 Best Paper Honorable Mention Award

2020, 8th Heidelberg Laureate Forum Young Researcher

2018, Adobe Research Fellowship (Top 10 students around the world)  
2018, Special Recognition for Excellent Review CHI'18  
2017, Rising Stars in EECS  
2017, ACM CRA-W Grad Cohort, CRA-W  
2017, ACM UIST Doctoral Symposium (Fully funded invited participant)  
2017, Special Recognition for Excellent Review, UIST'17  
2015, The Best User Experience Award, Hack CU, Boulder  
2014, Early Career Development Award, CS Department, University of Colorado  
2014, Dean's Fellowship, University of Colorado  
2013, Beverly Sears Graduate Student Scholar  
2013, Grace Hopper Scholar, Anita Borg Institute for Women in Computing and Technology  
2012, Dean's Fellowship, University of Colorado  
2010, Presidential Award, the Best Contributor of the Year, Korea Telecom (KT Corp.), Korea  
2010, Best Business Model Award, Korea Telecom (KT Corp.), Korea  
2010, Chancellor's Award for the Class of 2010, Korea Aerospace University, Korea  
2009, Best Undergrad Thesis (Capstone Project) Award, Korea Aerospace University, Korea  
2007 & 2009, Jeong-Seok Foundation Scholarship (Top 1 student in the CS Department), Korea  
2004-2009 Scholarship for Excellent Academic Records, Korea Aerospace University, Korea  
2007 ISTAT Foundation Scholarship (8 students around the world)  
2006 Honorary Alumnus, Yanbian University of Science and Technology, China  
2005, Han-Jin Foundation Scholarship, Korea

## **Advising & Mentoring**

### **Ph.D. Students (Chair)**

2023-present, Qian (Emory) Liu (CS)  
2021-present, Abul Al Arabi (CS)  
2020-present, Nahyun Kwon (CS)  
2020-present, Himani Deshpande (CS)

### **Ph.D. Students (Committee member & Direct Studies)**

2023-present, Md Maklachur Rahman (CS)  
2023-present, Osazuwa Okundaye (Architecture)  
2023-present, Aryabhat Darnal (Mechanical Engineering)  
2021-present, Di Liu (Construction Science)  
2019-2021, Alex Berman (CS)

### **M.S. Students**

2022, Prajwal Iyer (CS)  
2021, Arman Rezaee (CE)  
2019-2021, Chen Liang (CS, Master's Thesis chair) **Master's Student Excellence in Research Award**  
2020, Elaine Yi-Lien Liang (Engineering Technology & Industrial Distribution)

### **Undergraduate students & Intern**

2023-present, Joanne Liu (CS)  
2022-present, Muhammad Hasham Qazi (Halliburton Engineering Global Intern)  
2021, Prajwal Iyer (CS)  
2021, Harsha Siripurapu (CS)  
2021, Zhengnan Huang (CS)  
2020-2021, Rush Hoelscher (CS, Honors Thesis chair)

## Teaching

### Computer-Human Interaction (CSCE 436)

Spring 2023, Instructor, 100+30 students (undergrads, honors section)

Spring 2022, Instructor, 100 students (undergrads)

Spring 2021, Instructor, 100 students (undergrads), delivered online due to COVID

Spring 2020, Instructor, 60 students (undergrads), partly delivered online due to COVID

### Digital Fabrication Studio (CSCE 689)

Fall 2020, Instructor, 12 students (graduate)

### Human-centered Seminar (CSCE 667)

Fall 2019, Instructor, 8 students (graduate)

## Professional Service

### Proposal Review Panel

NSF CISE, Expeditions Program 2022

NSF CISE, GRFP program 2022

(Internal) Texas A&M University Office of Provost, X-grant program 2021

### Program Committee & Organizing Chair

ACM CHI, 2023-2024 | Subcommittee chair for Novel Devices: Hardware, Materials, and Fabrication

TxHCI Seminar Series, 2020-present | Founding organizer

ACM CHI, 2018-2023 | Program Committee

ACM UIST, 2020-2022 | Program Committee

ACM UIST, 2021-2022 | Posters program chair

ACM SIGGRAPH Asia, 2022 | Emerging Technology Program Committee

ACM SCF, 2021 | Program Committee

ACM IUI, 2021 | Short papers program chair, 2022

ACM EICS, 2021 | Editorial Board/Program Committee

ACM UIST, 2019-2020 | Registrations Co-Chair

### Journal Paper Review & Editorial Board

Foundations and Trends in HCI, Editorial Board, 2023-present

Frontiers in Virtual Reality, Editorial Board, 2023-present

International Journal of Design (IJDesign), 2021

Sustainability, 2021, MDPI

Universal Access in the Information Society (UAIS), 2019, Springer

Interactive, Mobile, Wearable and Ubiquitous Technologies, 2018, ACM

Transactions on Accessible Computing, 2018, ACM

Research in Developmental Disabilities, 2015, Elsevier

### Session Chair

Society of Engineering Symposium | 3D/4D Printing of Multifunctional Structures

ACM UIST 2021-2023 | Fabrication, Fabrication: Joints and Mechanisms, 3D printing

ACM TEI 2021 | Traces

ACM UIST 2020 | Fabrication: Joints & Mechanisms

### Conference Paper Review

ACM UIST (2013- Present) | Papers, ACM CHI (2014-Present) | Papers, Late Breaking Works (Work-in-Progress), Art Exhibition, ACM TEI (2014-Present) | Papers & Pictorials, ACM SCF (2018-Present) | Papers & Posters, ACM

DIS (2014- Present) | Papers, Pictorials, Provocations and Works-in-Progress, ACM CSCW (2015-Present) | Papers, Posters, ACM Eurographics 2023 | Technical papers, ACM VRST (2021) | Papers, ACM SIGGRAPH (2020) | Technical Papers

Others: C&C (2015/2017), IDC (2014-2017), SUI (2014), CHI Play (2014-2016), Mobile HCI (2014-2016), TVX (2014-2016), ISS (Formally ITS, 2014)

### **Guest/Consulting Editor**

ODYSSEY Magazine: Adventures in Science, Special Issue on 3D Printing in the World  
Android SDK Reference Book (ISBN: 9788909189026)

### **Internal Service**

Faculty Search Committee | CSE, Texas A&M (2022-2023)  
Diversity, Equity, Inclusion, & Accessibility Committee | CSE, Texas A&M (2022-2023)  
Department Advisory Committee (Elected position) | CSE, Texas A&M (2021-2022)  
Visualization Department Joint Committee | CSE, Texas A&M (2021-2022)  
Ph.D. Program Admission Committee | CSE, Texas A&M (2019-2020, 2020-2021)

### **Outreach & Broadening Participation in Computing (BPC)**

2023, Annual CS Day Founding Organizer <https://www.csday.org/> ([news article](#))  
2022-present, AWiCS (Aggie Women in Computer Science) student organization, Faculty advisor  
2020-present, TxHCI Seminar Series, Founding faculty member  
2022, Summer Aggie STEM camp, Faculty host  
2022, Summer Computing Academy, A&M High-performance Research Center, Faculty host  
2021, Engineering Excellence Enrichment (E3) program (Faculty host with Dr. Shinjiro Sueda)  
2021, Spark! Summer camp for K-12 Students, College of Engineering, Faculty host  
2021, UT Southwest STAR workshop for prospective Biomedical Engineers, Guest lecture  
2019, CU Science Discovery, Workshop, *"Build Better Books (BBB)"*  
2017, ATLAS Research Showcase, Demo *"Kinemaker: Supporting Mechanical Design by Remixing 3D Gearboxes"*  
2015, Denver Public Library, 2 weeks Workshops at Family IdeaLAB, *"Programming 3D Pictures"*  
2015, CU Science Discovery, 2 weeks Summer Camp *"Designing 3D Pictures by Web Programming"*  
2014-2015, CU Science Discovery, Guest lecture for Highschool students, *"Creating Tangible Media"*  
2015, Colorado Computer Science Education Week, Demo, *"Emergent Technologies: 3D Printing in Classroom"*  
2015, IdeaForge, Colorado, Demo, *"Tactile Picture Books for Children with Visual Impairments"*  
2014, Colorado Talking Book Library, Workshop *"Design Tactile Map to Guide People with Visual Impairments"*  
2014, Teen's Science Cafe, Colorado, Workshop *"Designing Tactile Pictures for 3D Printing"*

### **Invited Talks**

2023, Electronics and Telecommunications Research Institute (ETRI), Korea (Virtual, Host: Kihong Kim)  
2021, DEMAND Workshop (Virtual, Host: Jian Cao, Northwestern University)  
2021, Texas A&M VIVID Lab Preliminary Workshop (Virtual, Host: Ann McNamara)  
2021, Digital Fabrication at Korea HCI'21 (Virtual, Host: Andrea Bianchi)  
2020, Tactual Labs Toronto (Virtual, Host: David Holman)  
2020, University of California Berkeley, Jacobs Institute for Design (Canceled due to COVID)  
2019, KAIST, HCI@KAIST (School of Computing & Industrial Design), Korea (Host: Juho Kim)  
2019, KAIST, Electrical Engineering, Korea (Host: KyoungSoo Park)  
2019, Ewha Womans University, Computer Science & Engineering, Korea (Host: Uran Oh)  
2019, Cornell University, Information Science (Host: Francois Guimbretiere)  
2019, University of Illinois at Chicago, Computer Science (Host: Chris Kanich)  
2019, George Mason University, Computer Science (Host: Yotam Gingold)

2019, University of Colorado Boulder, Institute of Cognitive Science, Language Group, (Host: Eliana Colunga)  
2019, University of Victoria, Computer Science, Victoria, Canada (Host: Kwangmoo Yi)  
2018, Adobe, Fabrication Strategy Group Meeting, San Francisco, CA (Host: Wilmot Li)  
2018, Adobe, Creative Intelligence Lab, San Francisco, CA (Host: Qingnan James Zhou)  
2018, HP, Immersive Experiences Lab, Palo Alto, CA (Host: Tico Ballagas)  
2018, Seoul National University, Dept. of Communication, Korea (Host: Hwajung Hong)  
2017, Ericsson Research, Media Technology Group, Santa Clara, CA (Host: Alvin Jude Hari Haran)  
2015 National Teen's Science Cafe Network, Denver, CO (Host: Stacey)

## Invited Exhibitions

2018, Smithsonian Design Museum (Cooper Hewitt), New York, As part of *"Design for the Senses: Beyond Visual"*  
2017, King Abdulaziz Center for World Culture, Saudi Arabia, As part of *"World Culture Exhibition"*  
(Permanent)  
2016, Lyons Public Library, Colorado, *"Crowd Sourced 3D Printed Tactile Pictures – Harold and the Purple Crayon"*  
2015, Future of Storytelling Design Summit, New York, Part of *"Reinventing the Way Stories Are Told"*  
2015, Gemmille Engineering Library, CO, *"Crowdsourced 3D Printed Tactile Pictures – Harold and the Purple Crayon"*

## Press & Media (Selected, Since joining A&M)

2022, Arduino Press, Mobyot is a system that lets anyone automate everyday objects ([link](#))  
2021, Texas A&M Engineering, High school students look for the next big idea in engineering ([link](#))  
2020, IEEE Spectrum & ACM Tech News, Programmable Filament Gives Even Simple 3D Printers  
Multi-Material Capabilities ([link](#))  
2020, New ATLAS, New filament tech lets regular 3D printers build multi-material items ([link](#))  
2020, 3D Print.com, Programmable Filament: Multicolor & Multimaterial 3D Printing with No Hardware  
Upgrade ([link](#))  
2020, Hackster.io, Robiot is a Design Tool That Generates Mechanisms to Motorize Everyday Objects ([link](#))

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