

# Sang Won Lee

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## Areas of specialization

Human Computer Interaction (HCI), Computer Supported Cooperative Work and Social Computing (CSCW), Computer Music, Human Computation and Crowdsourcing

## Education

- 2018 PH.D. in Computer Science, University of Michigan, Ann Arbor, MI  
Dissertation : Improving User Involvement Through Live, Collaborative Creation  
(Dissertation Committee:Walter Lasecki(Chair), Georg Essl(Co-chair), Mark Ackerman, Steve Oney)
- 2014 M.S. in Computer Science, University of Michigan, Ann Arbor, MI
- 2012 M.S. in Music Technology, Georgia Tech, Atlanta, GA  
Thesis: Audience participation using mobile phones as musical instruments  
(Thesis Committee: Jason Freeman (Chair), Gil Weinberg, & Ellen Yi-Luen Do)
- 2010 M.S. in Management Science and Engineering, Stanford University, Stanford, CA
- 2007 B.S. in Industrial Engineering, Seoul National University, Seoul, South Korea

## Honors & Awards

- June 2024 Received **Honorable Mention Award**, at ACM Creativity and Cognition 2024 for paper “SHARP: Exploring Version Control Systems in Live Coding Music”.
- Dec. 2022 Received **Best Poster Award**, at ACM SUI 2022 for paper “Integrating Traditional Input Devices to Support Rapid Ideation in an Augmented-reality-based Brainstorming”.

- May 2022 Received **Best Paper Honorable Mention Award**, at ACM CHI 2022 for paper “OtherTube: Facilitating Content Discovery and Reflection By Exchanging YouTube Recommendations With Strangers”.
- Sep. 2020 Received **Best Short Paper**, at VL/HCC 2020 for paper “EdCode: Towards Personalized Support at Scale for Remote Assistance in CS Education”.
- Feb. 2017 Received **Rackham Pre-doctoral Fellowship**, University of Michigan. Fellowships include a stipend of \$32,640, candidacy tuition and registration fees for twelve months.
- Dec. 2016 Selected as a finalist for Adobe Research Fellowship.
- Nov. 2016 Selected as a finalist of the Annual CSE Graduate Honors Competition, Computer Science and Engineering, University of Michigan, Ann Arbor, MI.
- Sep. 2016 *Live Writing: Gloomy Streets* Received **ICMA Music Award** (student) at the International Computer Music Conference (over 600 submissions).
- Feb. 2015 *Aural Cavity* selected as a semi-finalist in Guthman Musical Instrument Competition 2015.
- May 2013 *Improvisation on a live-coded mobile musical instrument using urMus* Received the 3rd prize in Live Programming Demo Contest in International Conference on Software Engineering (**ICSE**) 2013.
- Sep. 2012 Received **CSE Fellowship**, University of Michigan. Fellowships include monthly stipend, tuition and registration fees for twelve months. (\$71,854)
- Nov. 2011 *LOLC* performance awarded **Best Artwork** in ACM Creativity and Cognition Conference 2011.
- Nov. 2011 *Crossole* chosen as a finalist in Georgia Tech Research and Innovation Conference (GTRIC).

### Advisees’ Awards

- May 2023 Teresa Thomas won **the David Heilman Research Award** from the Department of Computer Science at Virginia Tech.
- Apr. 2023 Md Momen Bhuiyan won 3rd place in **the Paul E. Torgersen Research Excellence Award** from the College of Engineering at Virginia Tech.
- Mar. 2022 Molly Hickman received **the Outstanding Thesis Award** from the Graduate School at Virginia Tech.

## Refereed Journals and Conference Proceedings

*Note about conference papers: in Human-Computer Interaction and Computer Music, conference proceedings are the preferred publication venues. Top-tier conferences such as CHI, UIST, and NIME are selective (approximately 25% acceptance rate for oral presentation).*

Underlined authors are (co-)advised by Sang Won Lee. \* indicates equal contribution.

- [J.16] Enriquez, D.\*, Moon, H.\*, Bowman, D., Jeon, M., **Lee, S. W.**, (2024). “Investigating Object Translation in Room-scale, Handheld Virtual Reality”. *IEEE Transactions on Visualization and Computer Graphics (TVCG)*. [15.9% (44/277) Acceptance Rate] (Conditionally Accepted)
- [C.42] Manesh, D., Wang, M., Hu, R., **Lee, S. W.**, (2024). “LEGATO: Piggybacking on IFTTT to Connect Triggers and Actions with JavaScript”, *In Proceedings of IEEE Symposium on Visual Languages and Human-centric Computing (VL/HCC)*, pp.1-16, Liverpool, United Kingdom. [33.3% Acceptance Rate] (To Appear)

- [C.41]  Manesh, D., Bowman Jr., D., Lee, S. W. (2024). “SHARP: Exploring Version Control Systems in Live Coding Music”, *In Proceedings of the ACM Conference on Creativity & Cognition (C&C)*, pp.1-12, Chicago, Illinois. [26.5% Acceptance Rate] (To Appear) DOI:10.1145/3635636.3656195  
**Honorable Mention Award**
- [J.15] Moon, H., Saade, M., Enriquez, D., Duer, Z., Moon, H. S., Lee, S. W., Jeon, M. (2024). “Mixed-Reality Art as Shared Experience for Cross-device Users Materialize, Understand, and Explore”. *International Journal of Human-Computer Studies (IJHCS)*, 190, pp.1-16. DOI:10.1016/j.ijhcs.2024.103291
- [C.40] Hu, D.\*, Bhuiyan, Md M.\*, Lim, S., Wiese, J., Lee, S. W., (2024). “Unpacking Task Management Tools, Values, and Worker Dynamics”, *In Proceedings of the Annual Meeting of the Symposium on Human-Computer Interaction for Work (CHIWORK)*, pp.1-21, Newcastle-upon-Tyne, UK. [56% Acceptance Rate] (To Appear) DOI:10.1145/3663384.3663402
- [J.14] Bhuiyan, Md M., Hu, D., Jelson, A., Mitra, T., Lee, S. W. (2024). “Investigating Characteristics of Media Recommendation Solicitation in r/ifyoulikeblank”. *Proceedings of the ACM on Human-Computer Interaction (PACM-HCI)*, CSCW (To Appear)
- [J.13] Isaza, C. A. B., Enriquez, D., Moon, H., Jeon, M., Lee, S. W. (2024). “Understanding Multi-user, Handheld Mixed Reality for Group-based MR Games”. *Proceedings of the ACM on Human-Computer Interaction (PACM-HCI)*, 8 (CSCW1), 197, pp.1-28. DOI:10.1145/3653688
- [J.12] Wang, B., Bhuiyan, Md M., Rho, E. H., Luther, K., Lee, S. W. (2024). “Understanding the Relationship Between Social Identity and Self-Expression Through Animated GIFs on Social Media”. *Proceedings of the ACM on Human-Computer Interaction (PACM-HCI)*, 8 (CSCW1), 192, pp.1-30. DOI:10.1145/3641031
- [C.39] Hu, D., Lee, S. W., (2024). “Exploring the Effectiveness of Time-lapse Screen Recording for Self-Reflection in Work Context”, *In Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI)*, pp.1-23, Honolulu, Hawaii. [26.3% Acceptance Rate] DOI:10.1145/3613904.3642469
- [J.11] Khalid, M., Akanmu, A., Murzi, H., Lee, S. W., Awolusi, I., Manesh, D., Okonkwo, C. (2024). “Industry Perception of the Knowledge and Skills Required to Implement Sensor Data Analytics in Construction”. *Journal of Civil Engineering Education*, pp.1-15. DOI:10.1061/JCEECD.EIENG-1902
- [C.38] Manesh, D., Luu, A., Khalid, M., Li, J., Okonkwo, C., Akanmu, A., Awolusi, I., Murzi, H., Lee, S. W., (2023). “Octave: an End-User Programming Environment for Analysis of Spatiotemporal Data for Construction Students”, *In Proceedings of IEEE Symposium on Visual Languages and Human-centric Computing (VL/HCC)*, pp.1-9, Washington D.C. DOI:10.1109/VL-HCC57772.2023.00014
- [C.37] Park, S. Y., Lee, S. W., (2023). “Why “why”? The Importance of Communicating Rationales for Edits in Collaborative Writing”, *In Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI)*, pp.1-25, Hamburg, Germany. [28.4% Acceptance Rate] DOI:10.1145/3544548.3581345
- [C.36] Bhuiyan, Md M., Lee, S. W., Goyal, N., Mitra T., (2023). “NewsComp: Facilitating Diverse News Reading through Comparative Annotation”, *In Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI)*, pp.1-17, Hamburg, Germany. [28.4% Acceptance Rate] DOI:10.1145/3544548.3581244
- [C.35] Li, Y., Lee, S. W., Bowman, D. A., Hicks, D., Lages, W. S., Sharma, A., (2022). “ARCritique: Supporting Remote Design Critique of Physical Artifacts through Collaborative Augmented Reality”, *In Proceedings of the ACM Symposium on Spatial User Interaction (SUI)*, pp.1-12, Virtual. [43.9% Acceptance Rate] DOI:10.1145/3565970.3567700
- [C.34] Hu, D., Lee, S. W., (2022). “Scrapbook: Screenshot-Based Bookmarks for Effective Digital Resource Curation across Applications”, *In Proceedings of the ACM Symposium on User Interface Science and Technology (UIST)*, pp.1-13, Bend, Oregon. [25.9% Acceptance Rate] DOI:10.1145/3526113.3545678

- [J.10] Islam, M. S., **Lee, S. W.**, Harden, S. M., Lim, S. (2022). “Effects of Vibrotactile Feedback on Yoga Practice”. *Frontiers in Sports and Active Living, Section Physical Activity in the Prevention and Management of Disease*, 4, pp.1-21. DOI:10.3389/fspor.2022.1005003
- [C.33] Carrera, D., **Lee, S. W.**, (2022). “Watch Me Write: Exploring the Effects of Revealing Creative Writing Process through Writing Replay”, In *Proceedings of the ACM Conference on Creativity & Cognition (C&C)*, pp.146-160, Venice, Italy. [23.4% Acceptance Rate] DOI:10.1145/3527927.3532806
- [C.32]  Bhuiyan, Md M., Isaza, C. A. B., Mitra T., **Lee, S. W.**, (2022). “OtherTube: Facilitating Content Discovery and Reflection By Exchanging YouTube Recommendations With Strangers”, In *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI)*, pp.1-17, New Orleans, Louisiana. [12.5% Minor Revision Acceptance Rate] **Honorable Mention Award** DOI:10.1145/3491102.3502028
- [J.9] Bhuiyan, Md M., Horning, M., **Lee, S. W.**, Mitra, T. (2021). “Designing Transparency Cues in Online News Platforms to Promote Trust: Journalists’ & Consumers’ Perspectives”. *Proceedings of the ACM on Human-Computer Interaction (PACM-HCI)*, 5 (CSCW2), 395, pp.1-31. DOI:10.1145/3479539
- [J.8] Bhuiyan, Md M., Horning, M., **Lee, S. W.**, Mitra, T. (2021). “NudgeCred: Supporting News Credibility Assessment on Social Media Through Nudges”. *Proceedings of the ACM on Human-Computer Interaction (PACM-HCI)*, 5 (CSCW2), 427, pp.1-30. DOI:10.1145/3479571
- [J.7] Hickman, M., Pasad, V., Sanghavi, H., Thebault-Spieker, J., **Lee, S. W.** (2021). “Understanding Wikipedia Practices Through Hindi, Urdu, and English Takes on an Evolving Regional Conflict”. *Proceedings of the ACM on Human-Computer Interaction (PACM-HCI)*, 5 (CSCW1), 34, pp.1-31. DOI: 10.1145/3449108
- [J.6] Park, S. Y., **Lee, S. W.** (2021). “Lost in Co-curation: Uncomfortable Interactions and the Role of Communication in Collaborative Music Playlists”. *Proceedings of the ACM on Human-Computer Interaction (PACM-HCI)*, 5 (CSCW1), 63, pp.1-24. DOI:10.1145/3449137
- [J.5] Li, Y., Hu, D., Wang, B., Bowman, D. A., **Lee, S. W.** (2021). “The Effects of Incorrect Occlusion Cues on the Understanding of Barehanded Referencing in Collaborative Augmented Reality”. *Frontiers in Virtual Reality, Section Augmented Reality*, 2, pp.1-16. DOI:10.3389/frvir.2021.681585
- [C.31] Movassagh, M. R., Roofigari-Esfahan, N., **Lee, S. W.**, Evia, C., Hicks, D., Jeon, M., (2021). “Human Factors Considerations for Teaming between Construction Workers and Voice-based Intelligent Virtual Agent (VIVA)”, In *Proceedings of the International Annual Meeting of the Human Factors and Ergonomics Society (HFES)*, pp.72-76, Baltimore, Maryland. DOI:10.1177/1071181321651139
- [C.30] Chen, Y., **Lee, S. W.**, Oney, S., (2021). “CoCapture: Effectively Communicating UI Behaviors on Existing Websites by Demonstrating and Remixing”, In *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI)*, pp 1–14, virtual. [26.3% Acceptance Rate] DOI:10.1145/3411764.3445573
- [C.29] Grudinschi, M., Norland, K., **Lee, S. W.**, Lim, S., (2020). “Task Analysis on Yoga Poses Toward a Wearable Sensor-based Learning System for Users with Visual Impairment”, In *Proceedings of the International Annual Meeting of the Human Factors and Ergonomics Society (HFES)*, pp.634-638, Chicago, Illinois. DOI:10.1177/1071181320641144
- [C.28]  Chen, Y., Herskovitz, J., Matute, G., Wang, A., **Lee, S. W.**, Lasecki, W. S., Oney, S., (2020). “EdCode: Towards Personalized Support at Scale for Remote Assistance in CS Education”, In *Proceedings of IEEE Symposium on Visual Languages and Human-centric Computing VL/HCC*, pp.1-5, Dunedin, New Zealand. **Best Short Paper Award** DOI:10.1109/VL/HCC50065.2020.9127260
- [C.27] Hu, D., **Lee, S. W.**, (2020). “ScreenTrack: Using a Visual History of a Computer Screen to Retrieve Documents and Web Pages”, In *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI)*, pp.1-13, virtual. [24.3% Acceptance Rate] DOI:10.1145/3313831.3376753

- [C.26] **Lee, S. W.**, Willette, A., Koutra, D., Lasecki, W.S., (2019). “The Effect of Social Interaction on Facilitating Audience Participation in a Live Music Performance”, *In Proceedings of the ACM Conference on Creativity & Cognition (C&C)*, pp.108-120, San Diego, California. [29.7% Acceptance Rate] DOI:10.1145/3325480.3325509
- [C.25] **Lee, S. W.**, (2019). “Show Them My Screen: Mirroring a Laptop Screen as an Expressive and Communicative Means in Computer Music”, *In Proceedings of the International Conference on New Interface for Musical Expression (NIME)*, pp.443-448, Porto Alegre, Brazil. DOI:10.5281/zenodo.3673029
- [J.4] **Lee, S. W.**, Krosnick, R., Park, S. Y., Keelean, B., Vaidya, S., O’Keefe, S. D., Lasecki, W. S. (2018). “Exploring Real-time Collaboration in Crowd-Powered Systems Through a UI Design Tool”. *Proceedings of the ACM on Human-Computer Interaction (PACM-HCI)*, 2(CSCW), 104, pp.1-23. DOI:10.1145/3274373
- [C.24] Krosnik, R., **Lee, S. W.**, Lasecki, W., Oney, S., (2018). “Expresso: Building Responsive Interfaces with Keyframes”, *In Proceedings of IEEE Symposium on Visual Languages and Human-centric Computing (VL/HCC)*, pp.39-47, Lisbon, Portugal. [29% Acceptance Rate] DOI:10.1109/VLHCC.2018.8506516
- [C.23] **Lee, S. W.**, Zhang, Y., Wong, I., Yang Y., O’Keefe, S., Lasecki, W.S., (2017). “SketchExpress: Remixing Animations For More Effective Crowd-Powered Prototyping Of Interactive Interfaces”, *In Proceedings of the ACM Symposium on User Interface Science and Technology (UIST)*, pp.817-828, Quebec City, Canada. [22.5% Acceptance Rate] DOI:10.1145/3126594.3126595
- [J.3] Essl, G., **Lee, S. W.** (2017). “The Design of urMus as a Meta-environment for Mobile Music”. *Journal of Creative Music Systems (JCMS)*, 1(2), pp.1-44. DOI:10.5920/JCMS.2017.08
- [C.22] Essl, G., **Lee, S. W.**, (2017). “Mobile Devices as Musical Instruments - State of the Art and Future Prospects”, *In Proceedings of the International Symposium on Computer Music Multidisciplinary Research (CMMR)*, pp.525-539, Matosinhos, Porto, Portugal. DOI:10.1007/978-3-030-01692-0\_35
- [C.21] **Lee, S. W.**, Bang, J., Essl, G., (2017). “Live Coding YouTube: Organizing Streaming Media for an Audiovisual Performance”, *In Proceedings of the International Conference on New interface for Musical Expression (NIME)*, pp.261-266, Copenhagen, Denmark. [24% Acceptance Rate] DOI:10.5281/zenodo.1176242
- [C.20] Chen, Y., **Lee, S. W.**, Xie, Y., Yang, Y., Lasecki, W., Oney, S., (2017). “Codeon: On-Demand Software Development Assistance” *In Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI)*, pp.6220-6231, Denver, Colorado. [25% Acceptance Rate] DOI:10.1145/3025453.3025972
- [C.19] **Lee, S. W.**, Scott, J., (2017). “Word Level Lyrics-Audio Synchronization Using Separated Vocals”, *In Proceedings of International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pp.646-650, New Orleans, Louisiana. DOI:10.1109/ICASSP.2017.7952235
- [C.18] **Lee, S. W.**, Essl, G., (2016). “Live Coding the Audience Participation” *In Proceedings of the International Conference on Live Coding (ICLC)*, pp.1-8, Hamilton, Canada.
- [C.17] Blackwell, A. F., Cox, G., **Lee, S. W.**, (2016). “Live Writing the Live Coding Book” *In Proceedings of the International Conference on Live Coding (ICLC)*, pp.1-12, Hamilton, Canada.
- [C.16] **Lee, S. W.**, Essl, G., Martinez, M., (2016). “Live Writing: Writing as a Real-time Audiovisual Performance” *In Proceedings of the International Conference on New Interface for Musical Expression (NIME)*, pp.212-217, Brisbane, Australia. DOI:10.5281/zenodo.1176060
- [C.15] Carvalho, A. D., **Lee, S. W.**, Essl, G., (2016). “Understanding Cloud Support in the Audience Participation Music Performance of Crowd in C[loud]” *In Proceedings of the International Conference on New Interface for Musical Expression (NIME)*, pp.176-181, Brisbane, Australia. DOI:10.5281/zenodo.

- [C.14] **Lee, S. W.**, Carvalho, A. D., Essl, G., (2016). “Crowd in C[loud]: Audience Participation Music with Online Dating Metaphor using Cloud Service” *In Proceedings of the Web Audio Conference (WAC)*, pp.1-6, Atlanta, Georgia.
- [C.13] **Lee, S. W.**, Essl, G., (2015). “Live Writing: Asynchronous Playback of Live Coding and Writing” *In Proceedings of the International Conference on Live Coding (ICLC)*, pp.1-9, Leeds, United Kingdom. DOI:10.5281/zenodo.19322
- [C.12] Carvalho, A. D., **Lee, S. W.**, Essl, G., (2015). “SuperCopair: Collaborative Live Coding on Super-collider through the cloud”, *In Proceedings of the International Conference on Live Coding (ICLC)*, pp.1-7, Leeds, United Kingdom. DOI:10.5281/zenodo.19347
- [C.11] **Lee, S. W.**, Essl, G., (2015). “Web-Based Temporal Typography for Musical Expression and Performance”, *In Proceedings of the New Interfaces for Musical Expression (NIME)*, pp.65–69, Baton Rouge, Louisiana. DOI:10.5281/zenodo.1179114
- [C.10] **Lee, S. W.**, Essl, G., (2014). “Models and Opportunities for Networked Live Coding”, *In Proceedings of The Live Coding and Collaboration Symposium 2014*, pp.1-5, Birmingham, United Kingdom.
- [C.9] **Lee, S. W.**, Essl, G., (2014). “Communication, Control, and State Sharing in Networked Collaborative Live Coding”, *In Proceedings of the New Interfaces for Musical Expression (NIME)*, pp.263–268, London, United Kingdom. [25% Acceptance Rate] DOI:10.5281/zenodo.1178847
- [C.8] **Lee, S. W.**, Essl, G., Mao, Z. M., (2014). “Distributing Mobile Music Applications for Audience Participation Using Mobile Ad-hoc Network (MANET)”, *In Proceedings of the New Interfaces for Musical Expression (NIME)*, pp.533–536, London, United Kingdom. DOI:10.5281/zenodo.1178849
- [C.7] **Lee, S. W.**, Essl, G., (2013). “Live Coding The Mobile Music Instrument”, *In Proceedings of the International Conference on New Interface for Musical Expression (NIME)*, pp.493–498., Daejeon-Seoul, South Korea. DOI:10.5281/zenodo.1178592
- [C.6] **Lee, S. W.**, Freeman, J. , (2013). “echobo: a Mobile Music Instrument Designed for Audience To Play”, *In Proceedings of the International Conference on New Interfaces for Musical Expression (NIME)*, pp.450–455, Daejeon-Seoul, South Korea. DOI:10.5281/zenodo.1178594
- [J.2] **Lee, S. W.**, Freeman, J. (2013). “Real-time Music Notation in Mixed Laptop-Acoustic Ensembles”. *Computer Music Journal (CMJ)*, 37(4), Winter, MIT Press, pp.24-36. DOI:10.1162/COMJ\_a\_00202
- [C.5] **Lee, S. W.**, Freeman, J., Collela, A., (2012). “Real-Time Music Notation, Collaborative Improvisation, and Laptop Ensembles”, *In Proceedings of the International Conference on New Interfaces for Musical Expression (NIME)*, pp.1-4, Ann Arbor, Michigan. DOI:10.5281/zenodo.1178315
- [C.4] **Lee, S. W.**, Srinivasamurthy, A., Tronel, G., Shen, W., Freeman, J., (2012). “Tok!: A Collaborative Acoustic Instrument using Mobile Phones”, *In Proceedings of the International Conference on New Interfaces for Musical Expression (NIME)*, pp.1-4, Ann Arbor, Michigan. DOI:10.5281/zenodo.1178317
- [C.3] Şentürk, S., **Lee, S. W.**, Sastry, A., Daruwalla, A., Weinberg, G., (2012). “Crossole: a Gestural Interface for Composition, Improvisation and Performance using Kinect”, *In Proceedings of the International Conference on New Interfaces for Musical Expression (NIME)*, pp.1-4, Ann Arbor, Michigan. 2012. DOI:10.5281/zenodo.1178201
- [C.2] **Lee, S. W.**, Freeman, J., Collela, A., Troyer, A. and Yao, S., (2012). “Evaluating Collaborative Laptop Improvisation with LOLC” *In Proceedings of the Symposium on Laptop Ensembles and Orchestras (SLEO)*, pp.55-62, Baton Rouge, Louisiana.
- [J.1] Park, W., Kim, D., Kim, K., **Lee, S. W.**, Lee, M. W. (2007). “A Method for Forecasting Demand of High Touch Product Using Matrix Analysis of Target Populations and Product Functions”. *Journal of the Ergonomics Society of Korea*, 26(1), pp.79-85. DOI:10.5143/JESK.2007.26.1.079



- [C.1] Kim, Y., **Lee, S. W.**, Lee, D. H., Kim, J., Lee, M. W., (2007). "Sound Detection as an Aid to Increase Detectability of CCTV in Surveillance System" *In Proceedings of International Conference on Usability and Internationalization*, pp.382-389. DOI:10.1007/978-3-540-73289-1\_44

## Publications under Review

- [R.4] Isaza, C. A. B., Tatar, D., Gautam, A., **Lee, S. W.** (2024). "Living Amid Distrust: Prospects for Socio-technical Interventions in Rural Communities Affected by Anti-personnel Mines".
- [R.3] Díaz, D. V., Kim, J., Karunaratna, S., Hornburg, C., Choi, K., **Lee, S. W.** (2024). "An Exploratory Study of Involving Parents in E-book Joint Reading with Voice Agents"
- [R.2] Jelson, A., Tausif, M. D., Khanna, S., Lim, S., **Lee, S. W.** (2025). "Investigating the Effects of Simulated Eye Contact in Video Call Interviews"
- [R.1] Ding, X., Ping, K., Gunturi, U. S., Carik, B., Stil, S., Wilhelm, W., Daryanto, T., Hawdon, J., **Lee, S. W.**, Rho, E. (2025)., "CounterQuill: Investigating the Potential of Human-AI Collaboration in Online Counterspeech Writing"

## Theses

- [T.2] **Lee, S. W.** "Improving User Involvement through Live Collaborative Creation." Ph.D. Dissertation, University of Michigan. 2018.
- [T.1] **Lee, S. W.** "Audience Participation Using Mobile Phones as Musical Instruments." Master's Thesis, Georgia Tech. Available at <http://hdl.handle.net/1853/44749>, 2012.

## Lightly Reviewed Papers - Posters, Notes, and Workshop Papers

- [P.44] Díaz, D. V., Karunaratna, S., Kim, J., Hornburg, C., Choi, K., **Lee, S. W.**, "TaleMate: Exploring the use of Voice Agents for Parent-Child Joint Reading Experiences", Workshop Paper, In The ACM CHI Workshop on Child-centred AI Design(CCAI), Honolulu, HI, 2024.
- [P.43] Abbas, A., **Lee, S. W.**, "PITCH - Productivity and Mental Well-being Coaching through Daily Conversational Interaction", Workshop Paper, In The ACM CHI Workshop on Designing AI for Well-being, Honolulu, HI, 2024.
- [P.42] Zhang, X., Wisniewski, P. J., Cho, J., Huang, L., **Lee, S. W.**, "Generating A Crowdsourced Conversation Dataset to Combat Cybergrooming", Workshop Paper, In the ACM CHI Workshop on Methods for Family-Centered Design (FCD), Honolulu, HI, 2024.
- [P.41] Jelson, A., **Lee, S. W.**, "Developing Context-Aware Sit-Stand Desks for Promoting Healthy and Productive Behaviors", Workshop Paper, In The ACM CHI Workshop on Intelligent and Interactive Writing Assistants, Honolulu, HI, 2024.
- [P.40] Díaz, D. V., Chung, J., Hu, D., Lim, S., **Lee, S. W.**, "Developing Context-Aware Sit-Stand Desks for Promoting Healthy and Productive Behaviors", Workshop Paper, In The ACM CHI Workshop on Office Wellbeing by Design: Don't Stand for Anything Less, Honolulu, HI, 2024.
- [P.39] Hu, D., Bae, J., Lim, S., **Lee, S. W.**, "Context-Aware Sit-Stand Desk for Promoting Healthy and Productive Behaviors", Poster, In The ACM Symposium on User Interface Software and Technology (UIST), San Francisco, California, 2023.

- [P.38] Vargas-Diaz, D., Karunaratna, S., Kim, J., Choi, K., Lee, S. W., “TaleMate: Collaborating with Voice Agents for Parent-Child Joint Reading Experiences”, Poster, In The ACM Symposium on User Interface Software and Technology (**UIST**), San Francisco, California, 2023.
- [P.37] Bowman Jr., D., Manesh, D., Lee, S. W. “SHARP: Supporting Exploration and Rapid State Navigation in Live Coding Music”, Poster, the International Conference on New interface for Musical Expression (**NIME**), Mexico City, Mexico, 2023
- [P.36] Thomas Jr., J., **Lee, S. W.**, Giovannelli, A., Lane, L., Bowman, D. A., “A Communication-Focused Framework for Understanding Immersive Collaboration Experiences” Workshop Paper, Mixing Realities: Cross-reality Visualization, Interaction, and Collaboration, Workshop at the 30th IEEE Conference on Virtual Reality and 3D User Interface (IEEE VR), 2023
- [P.35]  Phan, T., Bowman, D. A., Lee, S. W., “Integrating Traditional Input Devices to Support Rapid Ideation in an Augmented-reality-based Brainstorming” Poster, In The ACM Symposium on User Interface Software and Technology (**SUI**), Virtual, 2022. **the Best Poster award**
- [P.34] Wang, B., Lee, S. W., “TaskScape: Fostering Holistic View on To-do List With Tracking Plan and Emotion” Poster, In The ACM Symposium on User Interface Software and Technology (**UIST**), Bend, Oregon, 2022.
- [P.33] Wang, B., Manesh, D., Hu, R., Lee, S. W., “iThem: Programming Internet of Things Beyond Trigger-Action Pattern” Poster, In The ACM Symposium on User Interface Software and Technology (**UIST**), Bend, Oregon, 2022.
- [P.32] Islam, M.S., Sayani, N., Harden, S.M., **Lee, S. W.**, Lim, S., “An Observational Study Investigating Verbal Communication Differences in Online vs. In-person Group Exercise Training”, Extended Abstract, the International Annual Meeting of the Human Factors and Ergonomics Society (**HFES**), Atlanta, GA, 2022.
- [P.31] Manesh, D., Khalid, K., Murzi, H., Awolusi, I., Akanmu A., Lee, S. W. “Octave: Designing a Data Science Environment for Domain Experts” In the ACM CHI 2022 Workshop: Interrogating human-centered data science: Taking stock of opportunities and limitations
- [P.30] Akanmu A., Akligo, V. S., Ogunseiju O., **Lee, S. W.**, Murzi, H. “Data Analytics and Computational Thinking in Construction Engineering and Management Education: A Conceptual System” In the Construction Research Congress 2022 (CRC 2022)
- [P.29] Roofigari-Esfahan N., Porterfield C., Ogle T., Upthegrove T., Jeon M., **Lee, S. W.** “Group-based VR Training to Improve Hazard Recognition, Evaluation, and Control for Highway Construction Workers” In the IEEE VR workshop (VRW) on eXtended Reality for Industrial and Occupational Supports (XRIOS), 2022
- [P.28] Tausif M. T., Khanna, S., Ryu, D. S., Bennett, S. R., Moon, H. S., Lee, S. W., Jeon, M., “Evaluating 6DOF monoscopic tablet devices for an inclusive, immersive, and social virtual environment” In the ACM CHI 2021 Workshop on Design and Creation of Inclusive User Interactions Through Immersive Media, 2021
- [P.27] Isaza, C. A. B., Lee, S. W., “Understanding the needs of socio-technical interventions for rural communities in areas affected by anti personnel mines” In the ACM CHI 2021 Workshop: Decolonizing HCI across borders, 2021
- [P.26] Aftab, A., Hu, R., Lee, S. W., “Remo: Generating Interactive Tutorials through Demonstration by Remote Peers to Assist Older Adults” In the ACM CHI 2021 Workshop on Designing Interactions for the Ageing Populations - Addressing Global Challenges, 2021
- [P.25] Li, Y., Hicks, D., Lages, W.S., **Lee, S. W.**, Sharma, A., Bowman, D. A., “ARCritique: Supporting Remote Design Critique of Physical Artifacts through Collaborative Augmented Reality” In 2021



IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW). IEEE., 2021

- [P.24] Grudinschi, M., Norland, K., **Lee, S. W.**, Lim, S., “The Effectiveness of Wearable Sensor-Based Vibrotactile Feedback in Yoga Training for Users with Visual Impairment” Abstract, The 12th International Conference on Applied Human Factors and Ergonomics (**AHFE**), New York, 2021.
- [P.23] Tausif, T. M., Weaver, R., **Lee, S. W.**, “Towards enabling eye contact and perspective control in video conference” Poster, In The ACM Symposium on User Interface Software and Technology (**UIST**), Virtual, 2020.
- [P.22] Aftab, A., Hu, R., **Lee, S. W.**, “Remo: Generating Interactive Tutorials by Demonstration for Online Tasks” Poster, In The ACM Symposium on User Interface Software and Technology (**UIST**), Virtual, 2020.
- [P.21] Hu, D., **Lee, S. W.**, “Scrapbook: Screenshot-based Bookmark for Effective Curation of Digital Resources” Poster, In The ACM Symposium on User Interface Software and Technology (**UIST**), Virtual, 2020.
- [P.20] Pasad, V., Wang, B., **Lee, S. W.**, “Understanding the Challenges of Online Group Chat for Productive Discourse at Scale” Poster, In the International ACM Conference on Computer Supported Cooperative Work and Social Computing (**CSCW**), Virtual, 2020.
- [P.19] Hickman, M., Pasad, V., Sanghavi, H., Thebault-Spieker, J., **Lee, S. W.**, “Wiki HUES: Understanding Wikipedia practices through Hindi, Urdu, and English takes on evolving regional conflict” Note, International Conference on Information and Communication Technologies and Development (**ICTD**), Guayaquil, Ecuador, 2020.
- [P.18] Sun, S., **Lee, S. W.**, Jeon, M., “VR Viewfinder - the Effects of Enabling Third-person Perspectives for Bystanders on VR-based Interactive Arts” Workshop paper, In The ACM CHI Social Virtual Reality(VR) Workshop (**CHI**), 2020.
- [P.17] Sun, S., **Lee, S. W.**, Jeon, M., “VR Viewfinder - the Effects of Enabling Third-person Perspectives for Bystanders on VR-based Interactive Arts” Poster, In The ACM Capital Region Celebration of Women in Computing (**CAPWIC**), Newport News, Virginia, 2020.
- [P.16] Hu, D., **Lee, S. W.**, “ScreenTrack: Using Visual History for Self-tracking Computer Activities and Retrieving Working Context” Poster, In The ACM Symposium on User Interface Software and Technology (**UIST 2019**), New Orleans, Louisiana, 2019.
- [P.15] **Lee, S. W.**, “Computer-mediated Empathy”, Algorithms That Make You Think, the Fourth Annual Virginia Tech Workshop on the Future of Human-Computer Interaction 2019. Blacksburg, VA.
- [P.14] **Lee, S. W.**, “Liveness in Interactive Systems”, the CSCW 2018 workshop on Hybrid Events (**CSCW**) 2018. Jersey City, NJ.
- [P.13] Herskovitz, J., Chinnam, J., Wong, I., Liu, M., Mo, J., **Lee, S. W.**, Lasecki, W. S., “Crowdsourcing for Effortless Creation of Collaborative AR Spaces”, the CHI 2018 workshop on Novel Interaction for Collaboration in VR (**CHI**) 2018. Montreal, QC.
- [P.12] **Lee, S. W.**, Chen, Y., Lasecki, W.S., “The Need for Real-Time Crowd Generation of Task Lists from Speech”, In AAAI Conference on Human Computation and Crowdsourcing (**HCOMP**), Quebec City, Canada, 2017.
- [P.11] **Lee, S. W.**, “Hybrid Use of Asynchronous and Synchronous Interaction for Collaborative Creation” Doctoral Symposium, In The ACM Symposium on User Interface Software and Technology (**UIST**), Quebec City, Canada, 2017.
- [P.10] **Lee, S. W.**, “Integrating Asynchronous Interaction into Real-time Collaboration for Crowdsourced Creation” Boaster-Poster, In Human-Computer Interaction Consortium (**HCIC 2017**), Watsonville,

CA, 2017.

- [P.9] **Lee, S. W.**, Chen, Y., Klugman, N., Gouravajhala, S. R., Chen, A., Lasecki, W.S., “Exploring Coordination Models for Ad Hoc Programming Teams”, the ACM Conference on Human Factors in Computing Systems (**CHI**) 2017. Denver, CO, 2017.
- [P.8] **Lee, S. W.**, Carvalho, A. D., Essl, G. “Crowd in C[loud] : Audience Participation Music with Online Dating Metaphor using Cloud Service”, Invited as an Encore Track Paper at the AAAI Conference on Human Computation and Crowdsourcing (**HCOMP**), Austin, TX, 2016.
- [P.7] **Lee, S. W.**, Yang Y., Yan, S., Zhang, Y., Wong, I., Tan, Z., McGruder, M., Homan, C., Lasecki, W.S. “Creating Interactive Behaviors in Early Sketch by Recording and Remixing Crowd Demonstrations”, In AAAI Conference on Human Computation and Crowdsourcing (**HCOMP**), Austin, TX, 2016.
- [P.6] **Lee, S. W.** “Integrating Asynchronous Interaction into Real-time Collaboration for Crowdsourced Creation” Doctoral Consortium, In AAAI Conference on Human Computation and Crowdsourcing (**HCOMP**), Austin, TX, 2016.
- [P.5] **Lee, S. W.**, Essl, G., “Hooking up Web Audio to WebGL Typography”, Demo presented in Web Audio Conference (**WAC**). Atlanta, GA, 2016.
- [P.4] **Lee, S. W.**, Hejazi, C., Yoshioka, B., “Improvisation on a live-coded mobile musical instrument using urMus”, Demo Presented. In the First International Workshop on Live Programming in conjunction with ICSE, San Francisco, CA, 2013.
- [P.3] Freeman, J., **Lee, S. W.**, Yao, S., Albin, A. “LOLC for Laptop Music Ensemble” Panel Discussion in “Creativity and Improvisation” session at ACM Creativity & Cognition (**C&C**), Atlanta, GA, 2011.
- [P.2] **Lee, S. W.**, Freeman, J., Collela, A., Yao, S., Troyer, A. “Collaborative Musical Improvisation in a Laptop Ensemble with LOLC”, In Proceedings of the ACM Creativity & Cognition (**C&C**), Atlanta, GA, 2011.
- [P.1] Albin, A., **Lee, S. W.**, Chordia, P. “Visual Anticipation Aids in Synchronization Tasks”, the Society for Music Perception and Cognition 2011 University of Rochester, NY, 2011.

## Book Chapters

- [B.1] **Lee, S. W.**, Taylor, B., Essl G., “Interactive Music with Web Audio”, Foundation in Sound Design for Interactive Media, Routledge, 2019.

## External Grants (Awarded)

- 2024 **Collaborative Research: SaTC: CORE: Medium: Using Intelligent Conversational Agents to Empower Adolescents to be Resilient Against Cybergrooming** (03/2024 - 02/2027)  
Jin-Hee Cho (Lead PI at VT), Sang Won Lee (Co-PI, 21%), Lifu Huang (Co-PI), Pamela Wisniewski (PI at Vanderbilt)  
Total Award Value \$1,200,000  
National Science Foundation, SaTC program, Grant No-2330940/2330941
- 2023 **Using Intelligent Conversational Agents to Empower Adolescents to be Resilient Against Cybergrooming** (07/2023 - 12/2024)  
Jin-Hee Cho (PI), Sang Won Lee (Co-PI, 33%), Sang Won Lee (Co-PI),  
Total Award Value \$75,000

Commonwealth Cyber Initiative

2023 **Context-Aware Sit-Stand Intervention for Promoting Healthy Behaviors in Knowledge Workers** (01/2023 - 6/2024)  
Sol Lim (PI), Sang Won Lee (Co-PI, 50%)  
Total Award Value \$27,500  
Office Ergonomics Research Committee

2022 **Supporting Under-Resourced Software Engineering Job Seekers through Facilitating On-line Collaboration in Technical Interview Preparation**  
Chris Brown (PI), Sang Won Lee (Co-PI, 50%)  
Total Award Value \$60,000 (Unrestricted Gift)  
Google Award for Inclusion Research Program

2021 **RETTL: Facilitating socially constructed learning through a shared, mobile-based virtual reality platform in informal learning settings** (10/2021 - 9/2024)  
Sang Won Lee (PI, 37%), Myounghoon Jeon (Co-PI), Jeffrey Ogle (Co-PI), Phyllis Newbill (Co-PI), Chelsea Lyles (Co-PI)  
Total Award Value \$849,999  
National Science Foundation, RETTL program, Grant No-2119011

2021 **Collaborative Research: Improving Students' Computational Thinking Skills in Construction Engineering and Management** (6/2021 - 4/2025)  
Abiola Akanmu (PI), Sang Won Lee (Co-PI, 27%), Homero Murzi (Co-PI), Ibukun Awolusi (PI @ UTSA)  
Total Award Value \$535,504  
National Science Foundation, IUSE program, Grant No-2111003/2111045

## External Grants (Pending)

2024 **Understanding Challenges and Exploring Inclusive Recruitment Practices for Women Candidates in Technical Interviews**  
Chris Brown (PI), Sang Won Lee (Co-PI, 30%), Sara Hooshangi (Co-PI)  
Total Award Value \$300,000

2024 **A Novel Architecture of Conversational Agents for Sustainable Engagement in Enhancing and Reflecting on Productivity and Well-being**  
Sang Won Lee (PI)  
Total Award Value \$90,000

## Internal Grants

2024 **Supporting Students' Live Coding in Large-scale Programming Courses for Facilitating Active Learning** (07/2024-05/2025)  
Sang Won Lee (PI), Yan Chen (Co-PI)  
Total Award Value \$10,000  
High-Impact Project Grant, the Center for Excellence in Teaching and Learning (CETL)

- 2024 **How does LLM-based GAI affect the value of expertise and the range of valued expertise?**  
(07/2024-05/2025)  
Sang Won Lee (PI), Alice Jang (Co-PI), Daniel Dunlap (Co-PI)  
Total Award Value \$25,000  
CHCI Planning Grant
- 2024 **ToySphere: Reuse, Replicate, Reimagine** (07/2024-05/2025)  
Yoon Jung Choi (PI), Sang Won Lee (Co-PI), Myoung Hoon Jeon (Co-PI)  
Total Award Value \$22,500  
ICAT major SEAD Grant
- 2024 **Breathing Life into Meketre’s Tomb Models in VR: A Spatial Storytelling Immersive Experience** (07/2024-05/2025)  
Eiman Elgewely (PI), Thomas Tucker (Co-PI), Ivica Ico Bukvic (Co-PI), Amanda Nelson (Co-PI), Sang Won Lee (Co-PI)  
Total Award Value \$20,000  
ICAT major SEAD Grant
- 2024 **Leveraging Community-Centered Research to Expand Access to Youth Mental Health Knowledge and Services** (07/2024-06/2025)  
Sam Kempker-Margherio (PI), Heather, Davis Borchetta (Co-PI), Rosanna Breaux (Co-PI), Jody Russon (Co-PI), Sang Won Lee (Co-PI)  
Total Award Value \$29,974  
ISCE Scholars Program
- 2024 **Community Advisory Groups to Inform Youth Mental Health Needs in Southwest Virginia** (01/2024-06/2024)  
Sam Kempker-Margherio (PI), Heather, Davis Borchetta (Co-PI), Rosanna Breaux (Co-PI), Jody Russon (Co-PI), Sang Won Lee (Co-PI)  
Total Award Value \$10,000  
Whole Health Consortium SEED Fund
- 2023 **Integrating AI voice assistants into touchscreens for young children’s interactive math learning** (07/2023-06/2024)  
Koeun Choi (PI), Sang Won Lee (Co-PI)  
Total Award Value \$30,000  
ISCE Scholars Program
- 2023 **Digital Games and Interactive Curriculum** (07/2023-05/2024)  
Evan Lavender-Smith (PI), Sang Won Lee (Co-PI), Zach Duer (Co-PI), Michael Hsiao (Co-PI), Avery Wiscomb (Co-PI), Emmy Waldman (Co-PI), Dajana Nedic (Co-PI), James Ivory (Co-PI)  
Total Award Value \$23,500  
ICAT major SEAD Grant
- 2022 **Digital Games and Interactive Curriculum** (07/2022-05/2023)  
Evan Lavender-Smith (PI), Sang Won Lee (Co-PI), Zach Duer (Co-PI), Michael Hsiao (Co-PI), Avery Wiscomb (Co-PI), Wallace Santos Lages (Co-PI), James Ivory (Co-PI)  
Total Award Value \$21,628  
ICAT major SEAD Grant

- 2021 **Socially-Connected and Ability-Aware Online Physical Training for Older Adults** (10/2021-06/2022)  
Sol Lim (PI), Sang Won Lee (Co-PI), Samantha Harden (Co-PI), Sunwook Kim (Co-PI), Maury A. Nussbaum (Co-PI)  
Total Award Value \$10,000  
ICTAS EFO-O Seed Investment Grant
- 2020 **Supporting Remote Design Critique of Physical Objects through Collaborative Augmented Reality** (05/2020-08/2020)  
Douglas Bowman (PI), David Hicks (Co-PI), Wallace Santos Lages(Co-PI), Sang Won Lee(Co-PI), Akshay Sharma(Co-PI)  
Total Award Value \$10,000  
ICAT Rapid Response Grant
- 2020 **VRViewfinder: Engaging Bystanders in VR-based Interactive Media Using Auxiliary Viewing Devices** (07/2020-05/2021)  
Sang Won Lee (PI), Myounghoon Jeon (Co-PI), Zach Duer (Co-PI)  
Total Award Value \$25,000  
ICAT major SEAD Grant
- 2019 **Enhancing connectedness through remote social touch with particle jamming** (01/2020-05/2020)  
Sang Won Lee (PI), Shahabedin Sagheb (Co-PI)  
Total Award Value \$3,000  
ICAT mini SEAD Grant
- 2018 **Understanding and Mining Patterns of Audience Engagement and Creative Collaboration in Largescale Crowdsourced Music Performances** (06/2018-05/2019)  
Danai Koutra (PI), Walter Lasecki (Co-PI), Sang Won Lee (Research Associate)  
Total Award Value \$75,000  
Michigan Institute for Data Science (MIDAS)

## Teaching Experience

- 2018-Present Assistant Professor, Computer Science Department, Virginia Tech
- Introduction to GUI Programming and Graphics (redesigned the lecture materials to teach modern web framework): Spring 2023, Spring 2020.
  - Social Computing and Computer-supported Cooperative Work: Fall 2023, Fall 2021, Fall 2019.
  - Collaboration, Creativity, and Computing (A new course created): Spring 2021, Spring 2019.
  - Creative Computing Studio: Spring 2023, Spring 2022, Fall 2020, Fall 2018.
  - User Interface Software (redesigned the lecture materials to teach modern web framework): Fall 2022.
  - Introduction to Game Design and Game Studies (a new interdisciplinary course created and co-taught with three other faculty members): Fall 2023.
- 2012-2018 Graduate Research Assistant, University of Michigan, Ann Arbor
- 2013-2016 Graduate Student Instructor, University of Michigan, Ann Arbor
- User Interface Development: Fall 2016, Fall 2015, Winter 2014
  - Intelligent Interactive Systems: Winter 2016
  - Interactive Computer Graphics: Fall 2014

2013–Present Grader, University of Michigan, Ann Arbor

- Acoustics and Psychoacoustics, 2013–2018

2009 Tutor, Office of Accessible Education, Stanford University

2005–2007 Undergraduate Teaching Assistant, Human Factors Lab., Seoul National University

## Advisees

### Virginia Tech

#### Current Ph.D. students

Xinyi Zhang (Expected Graduation 12/2028)  
Adnan Abbas (Expected Graduation 05/2028)  
Andrew Jelson (Qualified, Expected Graduation 05/2027)  
Daniel Manesh (Qualified, Expected Graduation 05/2026)  
Carlos Augusto Bautista Isaza (Qualified, Expected Graduation 12/2025)  
Donghan Hu (Computer Science, Qualified, Passed Prelim 01/2023, Expected Graduation 12/2024)

#### Graduated Ph.D. students

Md Momen Bhuiyan (2023, co-advisor: Dr. Tanu Mitra)

- Dissertation: Combating Problematic Information Online with Dual Process Cognitive Affordances
- Assistant Professor at University of Minnesota Duluth

#### Current Masters Students

Andy Luu (Expected Graduation 12/2024)  
Robin Lu (Expected Graduation 12/2024)  
Rodney Okyere (Expected Graduation 05/2025)  
Sulakna Binoka Kumarihamy Karunaratna (Expected Graduation 12/2024, Co-chaired with Prof. Koeun Choi)

#### Graduated Masters Students (Thesis Chair)

Daniel Vargas Díaz (Graduated in 2024)

- Thesis: An Exploratory Study of Involving Parents in E-book Joint Reading with Voice Agents

Emily C. Altland (Graduated in 2024)

- Thesis: Investigating the Effects of Nudges for Facilitating the Use of Trigger Warnings and Content Warnings

Yi Lu (Graduated in 2024)

- Thesis: Helping job seekers prepare for technical interviews by enabling context-rich interview feedback

Boyuan Marx Wang (Graduated in 2023, Admitted to Ph.D. in UW iSchool)

- Thesis: Understanding How Users Express Their Social Identities through Animated Gif for Public Discourse

Muskan Gupta (Graduated in 2023)



- Thesis: Understanding Social Media Users' Perceptions of Trigger and Content Warnings

Md Tausif Tashin (Graduated in 2022)

- Thesis: Understanding the Effects of Tablet-based Virtual Reality (VR) Viewing Systems for an Inclusive, Cross-device Virtual Environment

Molly Hickman (Graduated in 2021)

- Thesis: Understanding Wikipedia Practices Through Hindi, Urdu, and English Takes on an Evolving Regional Conflict

Nathaniel Llorens (Graduated in 2021, Co-chaired with Prof. Doug A. Bowman)

- Thesis: Evaluating Collaborative Cues for Affinity Diagramming Tasks in Augmented Reality

Tam Phan (Graduated in 2021, Co-chaired with Prof. Doug A. Bowman)

- Thesis: Integrating Traditional Tools to Enable Rapid Ideation in an Augmented Reality Virtual Environment

Viral Pasad (Graduated in 2020)

- Thesis: Understanding Challenges of Online Group Chat for Productive Discourse at Scale

Donghan Hu (Graduated in 2019, Admitted to Ph.D. in Virginia Tech)

- Thesis: ScreenTrack: Using Visual History for Self-tracking Computer Activities and Retrieving Working Context

#### Graduated Masters Students (Non-thesis)

Daniel Enriquez (Graduated in 2023, Admitted to Ph.D. in Cornell Tech)

Amber Aftab (Graduated in 2022)

Dashiel Carrera (Creative Writing, Graduated in 2021, Admitted to Ph.D. in University of Toronto)

Edward Powell (Graduated in 2020)

#### Undergraduate Students

Jihoo Jeong

Teresa Thomas

Clara McDaniel

DooOh Kim

Drew Bowman

Jiangyue Li

Josh Cheng

Joseph S. Bae

Soumya Khanna

Hennah Nazari

Zach Monheim

Ruipu Hu (Admitted to Ph.D. in UMD iSchool)

Taylor Thackaberry

Li Huang

Noam Bendelac

Justin Lee

Sarah Oh

Weiqi Yuan

#### **University of Michigan**

JungHo Bang (Master)

Jaylin Herskovitz (Undergraduate)

Rebecca Krosnick (Ph.D.)  
Mari Martinez (Undergraduate)  
Roshan Narayan (Undergraduate)  
Zhengxi Tan (Undergraduate)  
Sach Vaidya (Undergraduate)  
Aaron Willette (Undergraduate)  
Isabelle Wong (Undergraduate)  
Yiwei Yang (Undergraduate)  
Yujin Zhang (Undergraduate)

### Other Universities

So Yeon Park (Ph.D., Mechanical Engineering, Stanford University, Currently UX researcher at Waymo)

## Invited Talks

- Feb. 2024 *Exploring Dual Perspectives in Computer-mediated Empathy*, Institute for People and Technology - GVU Center, Georgia Tech, Atlanta, GA
- Feb. 2024 *Exploring Dual Perspectives in Computer-mediated Empathy*, CS Colloquium Talks, University of Pittsburgh, Pittsburgh, PA
- Feb. 2024 *Exploring Dual Perspectives in Computer-mediated Empathy*, Human-Computer Interaction Guest Speaker, Carnegie Mellon University, Pittsburgh, PA
- Nov. 2023 *Toward Computer-mediated Empathy*, HCI@KAIST Fall Colloquium, Korea
- Nov. 2023 *Toward Computer-mediated Empathy*, Guest lecture, Crowdsourcing & Crowd-AI Systems, Penn State University
- May. 2023 *Record, Reveal, and Share: Computer-mediated Perspective Sharing*, Invited Seminar, NAVER Tech Talk series NAVER AI Lab, Korea
- Mar. 2023 *The CHCI Big Ideas Workshop Recap*, ICAT Playdate, Virginia Tech
- Oct. 2022 *Mobile-based VR for informal STEM learning*, ICAT Playdate, Virginia Tech
- Oct. 2022 *Record, Reveal, and Share: Computer-mediated Perspective Sharing*, Invited Seminar, HCIL Brown Bag Speaker Series, University of Maryland (UMD)
- Oct. 2022 *Record, Reveal, and Share: Computer-mediated Perspective Sharing*, Invited Seminar, Interactive Systems Research Center, University of Maryland at Baltimore County (UMBC)
- June. 2022 *Towards understanding computer-mediated empathy*, Invited Seminar, Kwangwoon University
- May. 2022 *Towards understanding computer-mediated empathy*, 2022 DGIST EECS Colloquium, DGIST
- Feb. 2022 *Human-Computer Interaction Research Applied to Everyday Life*, HCI Webinar, CS Alumni Event, Virginia Tech
- Feb. 2022 *YMMV: advice for conducting HCI research aboard*, Invited Talk, HCI Korea Society
- Sep. 2021 *VR Viewfinder: Towards inclusive and social virtual experience using motion-tracked tablets*, ICAT Playdate, Virginia Tech
- Aug. 2021 *Towards understanding liveness and computer-mediated empathy*, Invited Talk, HCI @ KAIST Seminar, KAIST

- Aug. 2021 *Towards understanding liveness and computer-mediated empathy*, Invited Talk, SNU Industrial Engineering Seminar, the Department of Industrial Engineering, Seoul National University
- Feb. 2021 *Towards understanding computer-mediated empathy*, Invited Talk, IST Research Seminar, the Department of Information Sciences and Technology, George Mason University
- Jan. 2021 *Embracing liveness and ubiquity in interactive music performances*, Guest Lecture, New Interfaces for Social Distant Collaboration (MUS4014H), The School of Performing Arts, Virginia Tech
- Nov. 2020 *Towards understanding computer-mediated empathy*, Invited Talk, Social Informatics Group, CHCI, Virginia Tech.
- Oct. 2020 *Improving user involvement through live collaborative creation*, Invited Talk, Culture Technology, KAIST, Korea.
- Oct. 2020 *Beyond Zoom: Towards effective remote collaboration in the COVID-19 pandemic*, Invited Talk, Graduate Seminar, Virginia Tech.
- Nov. 2019 *Improving user involvement through live collaborative creation*, Invited Talk, Computer Science, Texas A&M University.
- Mar. 2019 *Improving user involvement through live collaborative creation*, Invited Talk, School of Information, University of Arizona.
- Oct. 2018 *Improving user involvement through live collaborative creation*, Invited Talk, Galileo Seminar, Virginia Tech.
- Oct. 2018 *Exploring Real-Time Collaboration in Crowd-powered Systems*, Invited Talk, CHCI ICAT Playdate Seminar, Virginia Tech.
- Oct. 2018 *Improving user involvement through live collaborative creation*, Invited Talk, Engineering Research Seminar, Virginia Tech.
- Sep. 2018 *Improving user involvement through live collaborative creation*, Invited Talk, Graduate Seminar, Virginia Tech.
- Apr. 2018 *Improving user involvement through live collaborative creation*, Invited Talk, Design Science Seminar, University of Michigan.
- Mar. 2018 *Improving user involvement through live collaborative creation*, Invited Talk, Computer Science, University of Rochester.
- Mar. 2018 *Improving user involvement through live collaborative creation*, Invited Talk, Computer Science, Virginia Tech.
- Mar. 2018 *Improving user involvement through live collaborative creation*, MISC Talks Series, University of Michigan.
- Feb. 2017 *Improving user involvement through live collaborative creation*, Invited Talk, Informatics Department, New Jersey Institute of Technology.
- Oct. 2017 *SketchExpress: Remixing Animations for More Effective Crowd-Powered Prototyping of Interactive Interfaces*, MISC Talks Series, University of Michigan.
- Aug. 2015 *Networked Collaboration and Communication in Live Coding*. Department of Computer Science, University of São Paulo - Brazil
- Apr. 2015 *Networked Collaboration and Communication in Live Coding*. Graduate School of Convergence Science and Technology, Seoul National University
- Apr. 2015 *Networked Collaboration and Communication in Live Coding*. Graduate School of Culture Technology, KAIST

- Apr. 2015 *Networked Collaboration and Communication in Live Coding*. Department of Industrial Engineering, Seoul National University
- Jan. 2015 *Performance Systems - Mobile Phones as Musical Instruments*. EECS 498: Mobile Phone Ensemble class, University of Michigan
- June 2012 *Audience Participation Using Mobile Phones as Musical Instruments*, Graduate School of Culture Technology, KAIST
- June 2012 *Music, Engineering and Music Technology*, School of Design and Human Engineering, UNIST
- June 2012 *Music, Engineering and Music Technology*, Department of Industrial Engineering, Hongik University

## Service to the profession

### Program Committees

- 2024 Associate Chair - The ACM Conference on Human Factors in Computing Systems (**CHI**), User Experience and Usability Subcommittee
- 2023 Program Committee - The ACM Collective Intelligence
- 2022 Program Committee - The ACM Conference on Creativity & Cognition (**C&C**)
- 2022 Associate Chair - The ACM Conference on Human Factors in Computing Systems (**CHI**), Specific Applications Areas Subcommittee
- 2021 Associate Chair - The ACM Conference on Computer-Supported Cooperative Work and Social Computing (**CSCW**)
- 2021 Program Committee - The ACM Conference on Creativity & Cognition (**C&C**)
- 2020 Program Committee - The ACM Collective Intelligence Conference
- 2019 Program Committee - The ACM Conference on Creativity & Cognition (**C&C**)
- 2019 Senior Program Committee - The Web Conference (**WWW**)
- 2016 Program Committee member of Works-in-progress & Demonstration Papers, AAAI Conference on Human Computation and Crowdsourcing (**HCOMP**)

### Conference Organization

- 2025 Treasury Chair -The ACM Conference on Creativity & Cognition (**C&C**)
- 2024 Treasurer - The ACM Symposium on User Interface Software and Technology (**UIST**)
- 2024 Session Chair - The ACM Conference on Creativity & Cognition (**C&C**)
- 2024 Treasury Chair -The ACM Conference on Creativity & Cognition (**C&C**)
- 2023 Treasurer - The ACM Symposium on User Interface Software and Technology (**UIST**)
- 2023 Graduate Symposium Chair - The ACM Conference on Creativity & Cognition (**C&C**)
- 2022 Session Chair - The ACM Conference on Human Factors in Computing Systems (**CHI**)
- 2021 Technology Co-chairs - The AAAI Conference on Human Computation and Crowdsourcing (**HCOMP**)
- 2021 Online Experience Chair - The International Symposium on Mixed and Augmented Reality (**ISMAR**)

2021 Technical Chair -the International Conference on Auditory Display (**ICAD**)  
 2019 Session Chair - The ACM Conference on Creativity & Cognition (**C&C**)  
 2018 Publication Chair - The International Conference on New Interfaces for Musical Expression (**NIME**)  
 2017 The International Computer Music Association Award Committee (**ICMA**)  
 2013 Music Jury, International Conference on Computer Music - **ICMC**

### **Paper Reviewer**

2024 International Journal of Human-Computer Studies (**IJHCS**)  
 2017-2023 The ACM Conference on Human Factors in Computing Systems (**CHI**)  
 2015-2023 The International Conference on New Interfaces for Musical Expression (**NIME**)  
 2018-2023 The ACM Conference on Computer-Supported Cooperative Work and Social Computing (**CSCW**)  
 2017-2023 The ACM Conference on Creativity & Cognition (**C&C**)  
 2016-2022 The ACM Symposium on User Interface Software and Technology (**UIST**)  
 2022 Behaviour & Information Technology (**BIT**) Journal  
 2022 International Journal of Human-Computer Studies (**IJHCS**)  
 2022 The Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (**IMWUT**)  
 2022 The International Conference on Movement and Computing Conference (**MOCO**)  
 2020-2021 The Web Conference (formerly known as **WWW**)  
 2021 The ACM SIGCHI Conference on Designing Interactive Systems (**DIS**)  
 2019 The International Symposium on Electronic Art (**ISEA**)  
 2015-2018 The International Conference on Live Coding (**ICLC**)  
 2016-2018 The International Society for Music Information Retrieval (**ISMIR**)  
 2016-2018 The Web Audio Conference (**WAC**)  
 2016 the International Journal of Performance Arts and Digital Media  
 2014 EAI Endorsed Transactions on Creative Technologies.  
 2012 the International Conference on Auditory Display (**ICAD**)

### **Outreach, Exhibition, & Misc.**

Apr. 2024 Organized Virginia Tech Undergraduate Research Computer Science (VTURCS) Symposium, Blacksburg, VA.  
 Apr. 2024 Co-organized the Workshop. “AI for Social Good: Empowering Youth to Be Resilient Against Cybergrooming”, Blacksburg, VA. <https://people.cs.vt.edu/~jicho/cci-miniworkshop2024.html>  
 Mar. 2024 Co-organized The 2024 CHCI Big Ideas Workshop , Blacksburg, VA. <https://hci.icat.vt.edu/workshops/chci-eighth-annual-workshop.html>  
 Nov. 2023 Participated in VT Science Festival with “Solar System Explorer”, Blacksburg, VA. <https://www.wdbj7.com/2023/10/31/science-museum-western-virginia-previews-stem-events/>  
 July. 2023 Participated in Summer Camp at Science Museum of Western Virginia with “Solar System Explorer”, Roanoke, VA.

- July. 2023 Taught Class “Learning Programming via Algorithmic Music Making and Beyond” in TechGirls Camp (<https://techgirlsglobal.org/>), Blacksburg, VA.
- Apr. 2023 Organized Virginia Tech Undergraduate Research Computer Science (VTURCS) Symposium Blacksburg, VA.
- Apr. 2023 Exhibited “Solar System Explorer” in Hokie for a Day, Center for Educational Networks and Impacts (CENI), Blacksburg, VA.
- Mar. 2024 Chaired and co-organized The 2023 CHCI Big Ideas Workshop <https://hci.icat.vt.edu/workshops/chci-big-idea-workshop.html> , Blacksburg, VA.
- Feb. 2023 Exhibited “Solar System Explorer” in Prices Fork STEM Night, Blacksburg, VA.
- Nov. 2022 Exhibited ”Solar System Explorer” in Hokie for a Day, Center for Educational Networks and Impacts (CENI), Blacksburg, VA.
- Nov. 2022 Exhibited “Solar System Explorer” in Virginia Tech Science Festival, Blacksburg, VA.
- May. 2022 Online showcase of Creative Computing Studio Capstone Projects, <https://wordpress.cs.vt.edu/ccs2022s>, Virtual
- Jan. 2021 Online showcase of Creative Computing Studio Capstone Projects, <https://wordpress.cs.vt.edu/ccs2020f/>, Virtual
- Nov. 2017 -Apr. 2018 Mentored high school students from underrepresented minority groups in “Wolverine Pathways Program”, Ann Arbor, MI, United States.
- 2017-2018 Michigan Interactive and Social Computing Research Group (**MISC**) student coordinator.
- June 2017 Led “POSSE Workshop: Making Music in Programming using EarSketch.” (Workshop) @ POSSE Foundation, 2017, Ann Arbor, MI, United States.
- May 2017 Organized Workshop “Setting up and running a Mobile Phone Orchestra” @ the International Conference on New interface for Musical Expression (**NIME**) 2017, Copenhagen, Denmark
- 2017 Student Volunteer, The ACM Conference on Human Factors in Computing Systems (**CHI**)
- 2017 Run Research and Development tutorials in CROMALab
- 2016-2017 MTurk/Upwork/hiring-platform support in CROMALab
- 2016 Computer Science and Engineering Graduation Admission Reviewers
- July 2016 Led “POSSE Workshop: Making Music in Programming using EarSketch.” (Workshop) @ POSSE Foundation, 2016, Ann Arbor, MI, United States.
- Sep. 2011 Exhibited *Crossole* in Atlanta Maker Faire.
- June 2011 Led *LOLC* workshop with local gifted high school students in Hands On Tech (H.O.T.) Camp. Georgia Tech., Atlanta, MI, United States
- May 2011 Exhibited *Stickies Music* in GT Salon Exhibition at Hinman Building, Georgia Tech.

## Career Development Workshops and Symposia

- 2023 CISE NSF CAREER Workshop
- 2020 CISE NSF CAREER Workshop
- 2019 Early Career Symposium, ACM CHI, Glasgow, United Kingdom



- 2019 Professional Development Institute (PDI) Program, Virginia Tech, Blacksburg, VA
- 2018 New Computing Faculty Workshops in Summer 2018 (CRA, NSF-supported) San Diego, CA
- 2018 Preparing Future Faculty Workshop, Rackham-CRLT, University of Michigan, Ann Arbor, MI
- 2017 **UIST** 2017 Doctoral Symposium (The ACM Symposium on User Interface Software and Technology), Quebec City, Canada
- 2017 Selected as a HCIC-Funded Student in University of Michigan to participate in Human Computer Interaction Consortium(**HCIC**) 2017 “Designing Future”.
- 2016 **HCOMP** 2016 Doctoral Consortium participant (International Conference on Human Computation and Crowd-sourcing), Austin, Texas


## Industry Experience

- 2015 Research Intern, Media Technology Lab., Gracenote Inc.
  - Developed a lyric-audio alignment system using voice synthesis and vocal separation. [**P.20**]
- 2014 Web Programmer/Designer, Massachusetts General Hospital
  - Developed an interactive website that enables researchers to manage contents. (<http://cfsib.com>)
- 2010-2011 Web Programmer/Designer, Stanford University
  - Developed an interactive website that enable researchers to retrieve genome-wide expression data of patients. (<http://gluegrant1.stanford.edu/DIC>)
- 2010 Database Engineer, TrimTabs Investment Research.
  - Developed of a system and database for crawling, storing, and reporting on data of insider transactions.
- 2009-2010 Independent Contractor, DamnTheRadio Inc.
  - Implemented a web crawler to collect live performance data from an online ticketing site.
- 2009-2010 Tech. Desk Consultant, Stanford University
  - Provided technical support for students in multimedia studio of Meyer library.
- 2009 Financial Technology Intern, TrimTabs Investment Research
  - Created and tested scripts for automating Exchange Traded Fund (ETF) report production.

## Music Performances, Artwork, & Composition

- Mar. 2020 Performed *Live Writing: Gloomy Street* in NYU IAPS concert. New York, NY.
- Dec. 2019 Performed *Live Writing: Gloomy Street* in DISIS Faculty Concert. Blacksburg, VA.
- Sep. 2019 Performed *Crowd in C[loud]* in the Information, Expression, and Immersion Symposium 2019, Blacksburg, VA.
- June. 2019 Performed *Crowd in C[loud]* in ACM Creativity and Cognition Conference(**C&C**) 2019, San Diego, CA.
- Dec. 2018 Performed *Crowd in C[loud]* in DISIS Faculty Concert. Blacksburg, VA.
- Aug. 2018 Presented: *Live Coding YouTube* in International Conference on Computer Music(**ICMC**) 2018. Daegu, South Korea
- July. 2018 Performed: *Live Coding YouTube* accepted at New York City Electroacoustic Music Festival (**NYCEMF**) 2018. New York

- Apr. 2018 Performed: *Live Coding YouTube* accepted at CHI Art Program, the ACM Conference on Human Factors in Computing Systems (**CHI**) 2018. Montreal, Canada. 2018
- Dec. 2017 Presented Performance: *Jimmy raps with Live Writing*, collaborated with D. Andrew STEWART, accepted at the International Conference on Live Coding (**ICLC**) 2017. Morelia, Mexico. 2017
- Aug. 2017 Performed *Live Writing: Gloomy Streets* accepted at the Toronto International Electroacoustic Symposium (**TIES**) 2017. Toronto, ON, Canada. 2017
- May. 2017 Performed: *Live Coding YouTube* accepted at the International Conference on New Interface for Musical Expression (**NIME**) 2017. Copenhagen, Denmark. 2017
- May. 2017 Presented *DISAPPEARING: Live Writing*, collaborated with D. Andrew STEWART, accepted at the International Conference on New Interface for Musical Expression(**NIME**) 2017. Copenhagen, Denmark. 2017
- May. 2017 Performed Performance: *Live Writing: Gloomy Streets* accepted at CHI Art Program, the ACM Conference on Human Factors in Computing Systems (**CHI**) 2017. Denver, CO. 2017
- Mar. 2017 Performed *Live Coding YouTube* in Performing Arts Technology Showcase 2017. McIntosh Theatre, University of Michigan.
- Oct. 2016 Performed *Crowd in C[loud]* in International Conference on Live Coding(**ICLC**) 2016. Hamilton, Canada.
- Sep. 2016  Performed *Live Writing: Gloomy Streets* in International Conference on Computer Music(**ICMC**) 2016. Utrecht, Netherlands. - **Won ICMA 2016 Music Award (Student)**
- July. 2016 Performed *Live Writing: Gloomy Streets* in the International Conference on New Interface for Musical Expression(**NIME**) 2016. Brisbane, Australia.
- Apr. 2016 Performed *Crowd in C[loud]* in Web Audio Conference (**WAC**) 2016. Atlanta, Georgia.
- Apr. 2016 Composed and Presented *Live Writing: Shatter*, Written and Performed by HoneyLess in Web Audio Conference (**WAC**) 2016. Atlanta, Georgia.
- Aug. 2015 Performed *Aural Cavity* in International Conference on Computer Music(**ICMC**) 2015. Denton, Texas.
- Apr. 2015 Composed and Presented *Live Writing: Reflection*, Performed by HoneyLess in Michigan Mobile Phone Ensemble: Final Class Concert 2015, Stamps Auditorium
- Apr. 2015 Performed *Crowd in C[loud]* in Michigan Mobile Phone Ensemble: Final Class Concert 2015, Stamps Auditorium
- Mar. 2015 Performed *Live Writing: Gloomy Streets* in Performing Arts Technology Showcase 2015. Britton Recital Hall, University of Michigan.
- Feb. 2015 Performed *Aural Cavity* in Guthman Musical Instrument Competition, Georgia Tech.
- Mar. 2014 Performed *Aural Cavity* in Performing Arts Technology Showcase 2014. Britton Recital hall, University of Michigan.
- Mar. 2014 Performed *Aural Cavity* in Final Concert of Interactive Media Design. Design Lab 1, University of Michigan.
- Apr. 2013 Performed *Improvisation on a live-coded mobile music instrument* in Michigan Mobile Phone Ensemble: Final Class Concert 2013, Stamps Auditorium
- Apr. 2013 Performed *T'ai Chi Theremin* in Michigan Mobile Phone Ensemble: Final Class Concert 2013, Stamps Auditorium
- May 2012 Performed *Where Are You Standing?* by Bongjun Kim, Woon Seung Yeo in the International Con-

- ference on New Interface for Musical Expression (**NIME**) 2012 at University of Michigan
- Apr. 2012 Performed *Music Slave (Mobile Choir)* in Listening Machines 2012, Georgia Tech., Atlanta, GA.
- Apr. 2012 Performed *echobo* in Listening Machines 2012, Georgia Tech., Atlanta, GA.
- Feb. 2012 Performed *SGLC* by Jason Freeman in Sonic Generator Concert (Video), Woodruff Art Center, Atlanta, GA
- Nov. 2011  Performed *LOLC* in ACM Creativity and Cognition Conference (C&C) 2011, Atlanta. - **Won Best Artwork Award**
- May 2011 Performed *LOLC* in the International Conference on New Interface for Musical Expression (**NIME**) 2011 at the University of Oslo, Norway.
- Apr. 2011 Performed *Crossole* in Listening Machines 2011 at Stubbins Gallery, Georgia Tech., Atlanta, GA.
- Mar. 2011 Exhibited *Stickies Music* in Sonic Generator Concert at Woodruff Art Center, Atlanta, GA.
- Oct. 2010 Performed *LOLC* in FutureMedia Fest 2010 at Georgia Tech, Atlanta, GA.
- Oct. 2010 Performed *BeatScape* in FutureMedia Fest 2010 at Georgia Tech, Atlanta, GA.

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