

# Dominic Kao

University of Illinois Urbana-Champaign

kalikao@illinois.edu

## EDUCATION

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**Massachusetts Institute of Technology**

*Ph.D. in Computer Science*

**Cambridge, MA**

2018

**Princeton University**

*M.S.E. in Computer Science*

**Princeton, NJ**

2012

**University of Alberta**

*B.S. in Computer Engineering Co-op*

**Edmonton, AB**

2009

## EXPERIENCE

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**University of Illinois Urbana-Champaign**

*Assistant Professor*

– Assistant Professor in Computer Science

**Urbana-Champaign, IL**

08/2025 – present

**Purdue University**

*Assistant Professor*

– Assistant Professor in Computer & Information Technology

**West Lafayette, IN**

08/2018 – 08/2025

**Electronic Arts**

*Game Developer*

– Worked on EA Sports Active 2 for Xbox Kinect and Playstation 3

**Burnaby, BC**

03/2010 – 08/2010

**Electronic Arts**

*Game Developer*

– Worked on core tools used in the Need for Speed and Skate franchises

**Vancouver, BC**

05/2008 – 12/2008

## GRANTS

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CAREER: Broadening Participation in Computing Through Virtual Identities (2024) (PI, \$512,775)

National Science Foundation

Developing and Optimizing Reflection-Informed STEM Learning and Instruction by Integrating Learning Technologies With Natural Language Processing (2023) (co-PI, \$300,000)

National Science Foundation

PECAS Mediator: Productive Online Teamwork Engagement Through Intelligent Mediation (2021) (co-PI, \$850,000)

National Science Foundation

## HONORS

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National Science Foundation CAREER Award (2024)

Best Paper Award (ACM Transactions on Interactive Intelligent Systems, 2024)

Oral Presentation (NeurIPS 2025)

Honorable Mention (ACM Conference on Human Factors in Computing Systems, 2022)

Honorable Mention (ACM Computer-Human Interaction in Play, 2021)

Best Paper Nominee (IEEE Transactions on Games, 2022)

Best Paper Nominee (Foundations of Digital Games, 2020)

Best Paper Honorable Mention (Foundations of Digital Games, 2014)

Emerging Virtual Scholar Award (American Educational Research Association, ARIEL-SIG, 2017)

Natural Sciences and Engineering Research Council of Canada Fellowships (M.S. 2010, Ph.D. 2014)

ACM CHI Special Recognitions for Outstanding Reviews (2020, 2021, 2022, 2023, 2026)

## PUBLICATIONS

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### CONFERENCE PAPERS

S. T. Mubarrat, B. C. Min, T. Shao, E. C. Smith, B. Benes, A. J. Magana, C. Mousas, **D. Kao**  
Game-Based and Gamified Robotics Education: A Comparative Systematic Review and Design Guidelines  
*ACM Human Factors in Computing Systems (CHI)*, 2026. [paper]

S. Guo, F. Zhang, C. Krogmeier, **D. Kao**, C. Mousas  
Out of Control: Effects of Multimodal Self-Similarity on Embodiment During Autonomous Avatar Demonstrations in Virtual Reality  
*ACM Human Factors in Computing Systems (CHI)*, 2026. [paper]

F.-C. Yang, M. Choi, **D. Kao**, C. Mousas  
On the Intelligence and Knowledgeability of Virtual Agents  
*ACM Human Factors in Computing Systems (CHI)*, 2026. [paper]

R. Wang, D. Zhao, Z. Yuan, T. Shao, G. Chen, **D. Kao**, S. Hong, B. C. Min  
PRIMT: Preference-Based Reinforcement Learning With Multimodal Feedback and Trajectory Synthesis From Foundation Models  
*Advances in Neural Information Processing Systems (NeurIPS)*, 2025. [paper]

#### **Oral.**

**D. Kao**, N. Ballou, K. Gerling, H. Breitsohl, S. Deterding  
How Does Juicy Game Feedback Motivate? Testing Curiosity, Competence, and Effectance  
*ACM Human Factors in Computing Systems (CHI)*, 2024. [paper]

S. Pandita, R. Ratan, T. Kim, D. Jang, C. Lim, K. Xu, A. S. Won, V. Stavropoulos, P. Sinlapanuntakul, A. S. Praetorius, J. Peña, I. Park, K. Nowak, N. Matthews, V. McArthur, J. Lin, K. M. Lee, B. Klebig, S. S. Kim, **D. Kao**, A. S. Kahn, D. C. Jeong, B. Hasler, D. F. Harrell, E. Han, A. Gambino, E. Downs, J. Cummings, C. L. Cook, V. H. Chen, D. Banakou, L. Aymerich-Franch  
The Development and Validation of the Motivations for Avatar-Mediated Meetings (MAMM) Scale  
*International Communication Association (ICA)*, 2024. [paper]

M. Nelson, A. Koiliias, **D. Kao**, C. Mousas  
Effects of Speed of a Collocated Virtual Walker and Proximity Toward a Static Virtual Character on Avoidance Movement Behavior  
*IEEE International Symposium on Mixed and Augmented Reality (ISMAR)*, 2023. [paper]

A. Joshi, C. Mousas, D. F. Harrell, **D. Kao**  
Exploring the Influence of Demographic Factors on Progression and Playtime in Educational Games  
*Foundations of Digital Games (FDG)*, 2022. [paper]

O. Keehl, **D. Kao**, E. Melcer  
Zen Hanzi: A Game for Raising Hanzi Component Awareness  
*Foundations of Digital Games (FDG)*, 2022. [paper]

**D. Kao**, R. Ratan, C. Mousas, A. Joshi, E. Melcer  
Audio Matters Too: How Audial Avatar Customization Enhances Visual Avatar Customization  
*ACM Human Factors in Computing Systems (CHI)*, 2022. [paper]

#### **Honorable Mention.**

R. Sharma, E. Melcer, **D. Kao**  
Exploring Relevance, Meaningfulness, and Perceived Learning in Entertainment Games  
*Digital Games Research Association (DiGRA)*, 2022. [paper]

**D. Kao**, A. Joshi, C. Mousas, A. Peddireddy, A. K. Gopi, J. Li, J. Springer, B. S. McGowan, J. B. Reed  
Fighting COVID-19 at Purdue University: Design and Evaluation of a Game for Teaching COVID-19 Hygienic Best Practices

*Foundations of Digital Games (FDG)*, 2021. [paper]

C. Mousas, A. Koilias, B. Rekabdar, **D. Kao**, D. Anastasiou  
Toward Understanding the Effects of Virtual Character Appearance on Avoidance Movement Behavior

*IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR)*, 2021. [paper]

S. Feng, A. J. Magana, **D. Kao**

A Systematic Review of Literature on the Effectiveness of Intelligent Tutoring Systems in STEM

*IEEE Frontiers in Education Conference (FIE)*, 2021. [paper]

H. Liu, Z. Wang, C. Mousas, **D. Kao**

Virtual Reality Racket Sports: Virtual Drills for Exercise and Training

*IEEE International Symposium on Mixed and Augmented Reality (ISMAR)*, 2020. [paper]

B. Sherrick, C. Smith, **D. Kao**, C. Mousas

Using Real-Time, In-Game Measures to Evaluate Game Difficulty

*National Communication Association (NCA)*, 2020. [paper]

**D. Kao**

Exploring Help Facilities in Game-Making Software

*Foundations of Digital Games (FDG)*, 2020. [paper]

**Best Paper Nominee.**

C. Mousas, **D. Kao**, A. Koilias, B. Rekabdar

Real and Virtual Environment Mismatching Induces Arousal and Alters Movement Behavior

*IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR)*, 2020. [paper]

**D. Kao**

Exploring the Effects of Growth Mindset Usernames in STEM Games

*American Educational Research Association (AERA)*, 2019. [paper]

D. F. Harrell, D. Olson, **D. Kao**, A. Rodriguez, L. Carney, S. V. Harrell

Exploring the Use of Virtual Identities for Broadening Participation in Computer Science Learning

*Immersive Learning Research Network (iLRN)*, 2018. [paper]

**D. Kao**, D. F. Harrell

The Effects of Badges and Avatar Identification on Play and Making in Educational Games

*ACM Human Factors in Computing Systems (CHI)*, 2018. [paper]

**D. Kao**, D. F. Harrell

Toward Understanding the Impact of Visual Themes and Embellishment on Performance, Engagement, and Self-Efficacy in Educational Games

*American Educational Research Association (AERA)*, 2017. [paper]

**Emerging Virtual Scholar Award.**

**D. Kao**, D. F. Harrell

Exploring the Effects of Dynamic Avatars on Performance and Engagement in Educational Games

*Games+Learning+Society (GLS)*, 2016. [paper]

**D. Kao**, D. F. Harrell

Toward Understanding the Impacts of Role Model Avatars on Engagement in Computer Science Learning

*American Educational Research Association (AERA)*, 2016. [paper]

**D. Kao**, D. F. Harrell

Toward Avatar Models to Enhance Performance and Engagement in Educational Games

*IEEE Computational Intelligence in Games (CIG)*, 2015. [paper]

**D. Kao**, D. F. Harrell

Exploring Construction, Play, Use of Virtual Identities in STEM Learning

*Jean Piaget Society Annual Conference (JPS)*, 2015. [paper]

D. F. Harrell, **D. Kao**, C. Lim, J. Lipshin, A. Sutherland

The Chimeria Platform: User Empowerment Through Expressing Social Group Membership Phenomena

*Digital Humanities (DH)*, 2014. [paper]

D. F. Harrell, **D. Kao**, C. Lim, J. Lipshin, A. Sutherland

Stories of Stigma and Acceptance Using the Chimeria Platform

*Electronic Literature Organization (ELO)*, 2014. [paper]

D. F. Harrell, **D. Kao**, C. Lim, J. Lipshin, A. Sutherland, J. Makivic, D. Olson

Authoring Conversational Narratives in Games With the Chimeria Platform

*Foundations of Digital Games (FDG)*, 2014. [paper]

**Best Paper Honorable Mention.**

#### JOURNAL ARTICLES

M. Choi, D. Cui, S. Guo, **D. Kao**, C. Mousas

Let's Do It My Way: Effects of Personality and Age of Virtual Characters

*IEEE International Symposium on Mixed and Augmented Reality (ISMAR)*, published in *IEEE TVCG*, 2025. [paper]

Z. Wu, Z. Chen, D. Zhu, C. Mousas, **D. Kao**

A Systematic Review of Generative AI on Game Character Creation: Applications, Challenges, and Future Trends

*IEEE Transactions on Games (ToG)*, 2025. [paper]

M. Choi, D. Cui, M. Volonte, A. Koiliias, **D. Kao**, C. Mousas

Toward Understanding the Effects of Intelligence of a Virtual Character During an Immersive Jigsaw Puzzle Co-Solving Task

*ACM Transactions on Applied Perception (TAP)*, 2025. [paper]

M. T. Kronenberger, H. N. Liang, C. Mousas, **D. Kao**

Design Considerations for Virtual Self-Representation in Educational Games

*IEEE Computer Graphics and Applications*, 2025. [paper]

A. Joshi, C. Mousas, S. S. Tokey, **D. Kao**

Exploring Player Agency in Educational Video Games

*Entertainment Computing (ENTCOM)*, 2025. [paper]

A. Joshi, S. S. Tokey, N. Glaser, **D. Kao**

Exploring Content Integration in Educational Video Games

*TechTrends*, 2025. [paper]

**D. Kao**, S. T. Mubarrat, A. Joshi, S. Pandita, C. Mousas, H. N. Liang, R. Ratan

Exploring How Gender-Anonymous Voice Avatars Influence Women's Performance in Online Computing Group Work

*International Journal of Human-Computer Studies (IJHCS)*, 2024. [paper]

M. Choi, S. Guo, A. Koiliias, M. Volonte, **D. Kao**, C. Mousas

Exploring the Effects of Self-Correction Behavior of an Intelligent Virtual Character During a Jigsaw Puzzle Co-Solving Task

*ACM Transactions on Interactive Intelligent Systems (TiiS)*, 2024. [paper]

A. J. Magana, S. T. Mubarrat, **D. Kao**, B. Benes

AI-Based Automatic Detection of Online Teamwork Engagement in Higher Education

*IEEE Transactions on Learning Technologies (TLT)*, 2024. [paper]

S. Guo, M. Choi, **D. Kao**, C. Mousas

Collaborating With My Doppelgänger: The Effects of Self-Similar Appearance and Voice of a Virtual Character During a Jigsaw Puzzle Co-Solving Task

*Proceedings of the ACM on Computer Graphics and Interactive Techniques (ACM SIGGRAPH I3D)*, 2024. [paper]

B. Chen, X. Yan, X. Hu, **D. Kao**, H. N. Liang

Impact of Tutorial Modes With Different Time Flow Rates in Virtual Reality Games

*Proceedings of the ACM on Computer Graphics and Interactive Techniques (ACM SIGGRAPH I3D)*, 2024. [paper]

W. Xu, K. Yu, X. Meng, D. Monteiro, **D. Kao**, H. N. Liang

Exploring the Effect of the Group Size and Feedback of Non-Player Character Spectators in Virtual Reality Exergames

*Frontiers in Psychology (Front. Psychol.)*, 2023. [paper]

J. Wang, R. Shi, W. Zheng, W. Xie, **D. Kao**, H. N. Liang

Effect of Frame Rate on User Experience, Performance, and Simulator Sickness in Virtual Reality

*IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR)*, published in *IEEE TVCG*, 2023. [paper]

H. Liu, M. Choi, **D. Kao**, C. Mousas

Synthesizing Game Levels for Collaborative Gameplay in a Shared Virtual Environment

*ACM Transactions on Interactive Intelligent Systems (TiiS)*, 2023. [paper]

**Best Paper.**

A. J. Magana, J. Hwang, S. Feng, S. Rebello, T. Zu, **D. Kao**

Emotional and Cognitive Effects of Learning With Computer Simulations and Computer Videogames

*Journal of Computer Assisted Learning (JCAL)*, 2022. [paper]

**D. Kao**

The Effects of Observation in Video Games: How Remote Observation Influences Player Experience, Motivation, and Behaviour

*Behaviour & Information Technology (BIT)*, 2022. [paper]

**D. Kao**, R. Ratan, C. Mousas, A. J. Magana

The Effects of a Self-Similar Avatar Voice in Educational Games

*Proceedings of the ACM on Human-Computer Interaction (CHI PLAY)*, 2021. [paper]

**Honorable Mention.**

**D. Kao**, A. J. Magana, C. Mousas

Evaluating Tutorial-Based Instructions for Controllers in Virtual Reality Games

*Proceedings of the ACM on Human-Computer Interaction (CHI PLAY)*, 2021. [paper]

C. Mousas, **D. Kao**, A. Koiliias, B. Rekabdar

Evaluating Virtual Reality Locomotion Interfaces on Collision Avoidance Task With a Virtual Character

*The Visual Computer (Proc. of CGI 2021)*, 2021. [paper]

D. Cui, **D. Kao**, C. Mousas

Toward Understanding Embodied Human-Virtual Character Interaction Through Virtual and Tactile Hugging

*Computer Animation and Virtual Worlds (CAVW)*, 2021. [paper]

T. Karabiyik, **D. Kao**, A. J. Magana

First-Year Exploratory Studies About Students' Career Decision Processes and the Impact of Data-Driven Decision Making

*The Educational Review, USA*, 2021. [paper]

**D. Kao**

The Effects of Juiciness in an Action RPG

*Entertainment Computing (ENTCOM)*, 2020. [paper]

**D. Kao**

Infinite Loot Box: A Platform for Simulating Video Game Loot Boxes

*IEEE Transactions on Games (ToG)*, 2019. [paper]

**Best Paper Nominee.**

EXTENDED ABSTRACTS, WORKSHOP PAPERS, AND POSTERS

T. Shao, O. Oyedokun, C. Mousas, **D. Kao**

Towards Understanding the Impact of AI-Generated Visual and Vocal Self-Similarity on Avatar Identification, Motivation, and Engagement in Educational Games

*Extended Abstracts of ACM Computer-Human Interaction in Play (CHI PLAY)*, 2025. [work in progress]

O. Oyedokun, S. T. Mubarrat, A. Joshi, C. Mousas, **D. Kao**

Exploring the Influence of Avatar Skin Tone in VR Educational Games

*Extended Abstracts of ACM Computer-Human Interaction in Play (CHI PLAY)*, 2024. [work in progress]

P. Acevedo, M. Choi, H. Liu, **D. Kao**, C. Mousas

Game Level Design to Evoke Spatial Exploration: The Influence of a Secondary Task

*Extended Abstracts of ACM Computer-Human Interaction in Play (CHI PLAY)*, 2024. [work in progress]

M. Choi, A. Koiliyas, M. Volonte, **D. Kao**, C. Mousas

Exploring the Appearance and Voice Mismatch of Virtual Characters

*Adjunct Proceedings of the IEEE International Symposium on Mixed and Augmented Reality (ISMAR)*, 2023. [poster]

**D. Kao**, A. J. Magana, O. Oyedokun, A. Ravi

Towards an Educational Computing Career Exploration Game

*Extended Abstracts of ACM Computer-Human Interaction in Play (CHI PLAY)*, 2022. [work in progress]

P. Acevedo, M. Choi, H. Liu, **D. Kao**, C. Mousas

Procedural Game Level Design to Trigger Spatial Exploration

*Foundations of Digital Games (FDG)*, 2022. [workshop paper]

N. Ballou, H. Breitsohl, **D. Kao**, K. Gerling, S. Deterding

Not Very Effective: Validity Issues of the Effectance in Games Scale

*Extended Abstracts of ACM Computer-Human Interaction in Play (CHI PLAY)*, 2021. [work in progress]

**D. Kao**, C. Mousas, A. J. Magana, D. F. Harrell, R. Ratan, E. Melcer, B. Sherrick, P. Parsons, D. A. Gusev

Hack.VR: A Programming Game in Virtual Reality

*Foundations of Digital Games (FDG)*, 2020. [poster]

**D. Kao**

JavaStrike: A Java Programming Engine Embedded in Virtual Worlds

*Foundations of Digital Games (FDG)*, 2019. [poster]

**D. Kao**

The Effects of Anthropomorphic Avatars vs. Non-Anthropomorphic Avatars in a Jumping Game

*Foundations of Digital Games (FDG)*, 2019. [poster]

**D. Kao**, J. J. De Simone

Exploring How Preference and Perceived Performance Vary in Different Game Genres Across Time of Day

*Foundations of Digital Games (FDG)*, 2019. [poster]

S. V. Harrell, M. Wagoner, **D. Kao**, D. Olson, A. Rodriguez, D. F. Harrell

Toward Using Virtual Identities in Computer Science Learning for Broadening Participation

*American Educational Research Association (AERA)*, 2019. [poster]

**D. Kao**, D. F. Harrell

MazeStar: A Platform for Studying Virtual Identity and Computer Science Education

*Foundations of Digital Games (FDG)*, 2017. [workshop paper]

**D. Kao**, D. F. Harrell, C. Lim, S. V. Harrell, M. Wagoner, H. Ho  
Highlighting MazeStar: A Platform for Studying Avatar Use in Computer Science Learning Environments  
*Games+Learning+Society (GLS)*, 2016. [showcase]

**D. Kao**, D. F. Harrell  
Exploring the Impact of Avatar Color on Game Experience in Educational Games  
*Extended Abstracts of ACM Human Factors in Computing Systems (CHI)*, 2016. [late-breaking]

**D. Kao**, D. F. Harrell  
Exploring the Effects of Encouragement in Educational Games  
*Extended Abstracts of ACM Human Factors in Computing Systems (CHI)*, 2016. [late-breaking]

**D. Kao**, D. F. Harrell  
Exploring the Use of Role Model Avatars in Educational Games  
*Experimental AI in Games (EXAG)*, 2015. [workshop paper]

**D. Kao**, D. F. Harrell  
Exploring the Impact of Role Model Avatars on Game Experience in Educational Games  
*Computer-Human Interaction in Play (CHI PLAY)*, 2015. [work in progress]

D. F. Harrell, **D. Kao**, C. Lim  
Toward Understanding Real-World Social Impacts of Avatars  
*Electronic Literature Organization (ELO)*, 2015. [panel]

**D. Kao**, D. F. Harrell  
Toward Evaluating the Impacts of Virtual Identities on STEM Learning  
*Foundations of Digital Games (FDG)*, 2015. [doctoral consortium]

**D. Kao**, D. F. Harrell  
Exigent: An Automatic Avatar Generation System  
*Foundations of Digital Games (FDG)*, 2015. [poster]

**D. Kao**, D. F. Harrell  
Mazzy: A STEM Learning Game  
*Foundations of Digital Games (FDG)*, 2015. [poster]

D. F. Harrell, **D. Kao**, C. Lim, J. Lipshin, A. Sutherland, J. Makivic  
The Chimeria Platform: An Intelligent Narrative System for Modeling Social Identity-Related Experiences  
*Intelligent Narrative Technologies (INT)*, 2014. [poster]

D. F. Harrell, **D. Kao**, C. Lim  
Computationally Modeling Narratives of Social Group Membership With the Chimeria System  
*Computational Models of Narrative (CMN)*, 2013. [workshop paper]

D. F. Harrell, C. Lim, **D. Kao**, J. Zhang  
The Living Liberia Fabric: An Interactive Narrative Artwork Memorializing Civil War in Liberia  
*International Symposium on Electronic Art (ISEA)*, 2013. [presentation]

#### BOOK CHAPTERS, THESES, AND TECHNICAL REPORTS

M. A. Chang, A. J. Magana, B. Benes, **D. Kao**, J. Fusco  
Driving Interdisciplinary Collaboration Through Adapted Conjecture Mapping: A Case Study With the PECAS Mediator  
*Digital Promise*, 2022. [technical report]

**D. Kao**  
Researching and Developing the Impacts of Virtual Identity on Computational Learning Environments  
*Massachusetts Institute of Technology*, 2018. [phd thesis]

**D. Kao**, D. F. Harrell  
Embellishment & Effects: Seduction by Style  
*Avatar, Assembled*, New York, NY: Peter Lang, 2018. [book chapter]

**D. Kao**  
Reward Preference in Video Games  
*Princeton University*, 2012. [ms thesis]

## INVITED TALKS

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University of Illinois Urbana-Champaign, IMMERSE Center for Immersive Computing (2025)  
University of Illinois Urbana-Champaign, Siebel School of Computing and Data Science (2025)  
Northeastern, College of Arts Media and Design and Department of Computer Science (2025)  
Rochester Institute of Technology, School of Interactive Games and Media (2025)  
Queensland University of Technology, School of Computer Science (2025)  
Michigan State University, Department of Media and Information (2025)  
University of Arizona, College of Information Science (2025)  
University of Utah, Division of Games (2025)  
National Taiwan University, Department of Computer Science (2024)  
University of Victoria, Department of Computer Science (2024)  
Purdue University, Department of CIT (2019)  
UC Santa Cruz, Department of Computational Media (2018)  
Purdue University, Department of CIT (2018)

## TEACHING

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<b>HCI Applied to Games and Education</b> <i>Instructor (Spring 2026, Fall 2025)</i>	<b>UIUC</b> ~28/semester
<b>HCI Applied to Games and Education</b> <i>Instructor (Spring 2025, Spring 2024, Fall 2023, Spring 2023, Fall 2022, Fall 2021, Fall 2020, Spring 2020)</i>	<b>Purdue University</b> ~15/semester
<b>Introduction to Object-Oriented Programming</b> <i>Instructor (Spring 2024, Fall 2023, Spring 2023, Fall 2022, Spring 2022, Fall 2021, Spring 2021, Fall 2020, Spring 2020, Fall 2019, Spring 2019)</i>	<b>Purdue University</b> ~160/semester
<b>Systems Programming</b> <i>Instructor (Fall 2018)</i>	<b>Purdue University</b> ~15/semester

## MENTORING

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Postdoctoral Researcher: Swati Pandita  
Ph.D. Students: Melissa Kronenberger, Olaoluwa Oyedokun, Syed Tanzim Mubarrat, Jiayi Liu, Lux Vijayan, Revan Ji  
Ph.D. Alumni: Amogh Joshi (2024), The World Bank  
M.S. Students: Olly Guo  
M.S. Alumni: Akash Ravi (2023, Microsoft), Abhigna Reddy (2022, Bloomberg), Arjun Kramadhati Gopi (2021, Amazon), Jianyao Li (2021)  
Ph.D. Dissertation Committees (non-chair): 14  
M.S. Thesis Committees (non-chair): 11  
Postdoctoral Mentoring Committee: 1

Additional Graduate Researchers: 9  
Undergraduate Researchers: 10

## REVIEWING

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AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment (AIIDE) (2019)  
ACM Annual Symposium on Computer-Human Interaction in Play (CHI PLAY):  
    Reviewer: 2020, 2023, 2024, 2025  
    Associate Chair: 2021, 2022  
    Video Chair: 2022  
ACM Conference on Computer Supported Cooperative Work (CSCW) (2021)  
ACM Conference on Human Factors in Computing Systems (CHI):  
    Reviewer: 2017, 2019, 2020, 2021, 2022, 2024  
    Late-Breaking Work (LBW) Associate Chair: 2021  
    Associate Chair: 2022, 2023, 2025, 2026  
ACM Foundations of Digital Games (Program Committee) (2019, 2020, 2021)  
ACM Symposium on Virtual Reality Software and Technology (VRST) (2018)  
ACM The Web Conference (TheWebConf) (Program Committee) (2022)  
ACM Transactions on Computer-Human Interaction (TOCHI) (2022)  
American Educational Research Association (AERA) (2017)  
Communication Monographs (2022)  
Computational Creativity & Games Workshop (Program Committee) (CCGW) (2016)  
Computer Animation and Social Agents (Program Committee) (CASA) (2025)  
Computer Animation and Virtual Worlds (2025)  
Computer Applications in Engineering Education (CAE) (2019, 2020, 2021)  
Computers in Human Behavior (CHB) (2022, 2025)  
Entertainment Computing (ENTCOM) (2022, 2023)  
Experimental Artificial Intelligence in Games Workshop (Program Committee) (EXAG) (2016, 2017)  
Heliyon (2024)  
Human-centric Computing and Information Sciences (2020)  
IEEE Conference on Games (Program Committee) (2021, 2022, 2024, 2025)  
IEEE International Symposium on Mixed and Augmented Reality (ISMAR) (2024)  
IEEE Transactions on Games (2019, 2021)  
Immersive Learning Research Network (iLRN) (2016, 2017, 2018, 2019, 2020)  
Immersive Learning Technologies (JUCS Special Issue) (2019)  
International Conf. on Artificial Reality and Telexistence & Eurographics Symposium on Virtual Env. (2024)  
International ICSE Workshop on Games and Software Engineering (GAS) (Program Committee) (2022)  
International Journal of Human-Computer Interaction (2022, 2023, 2024, 2025)  
International Journal of Human-Computer Studies (2023, 2025)  
International Society of the Learning Sciences (ISLS) (2016)  
Journal of Artificial Intelligence Review (AIRE) (2017)  
Journal of Computer Assisted Learning (JCAL) (2025)  
MIT CSAIL Ph.D. Admissions Committee (2016)  
Multimodal Technologies and Interaction:  
    Special Issue Editor for *Innovations in Game-Based Learning*: 2021  
National Center for Women & Information Technology (NCWIT) (2016, 2017, 2018)  
National Science Foundation (NSF) Panel Reviewer (2021)  
Review of Educational Research (RER) (2021)  
SIGGRAPH (2025)  
SIGGRAPH Asia (2024)  
Virtual Reality (2025)