Minsoo Choi | Curriculum Vitae

Ph.D. Candidate at Purdue University

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EDUCATION

Ph.D. in Technology August 2020 - Present

Purdue University, West Lafayette, IN

Department of Computer Graphics Technology

Advisor: Dr. Christos Mousas

M.S. in Computer Engineering March 2017 - February 2019

Hongik University, Seoul, Republic of Korea Department of Computer Engineering

Advisor: Dr. Jun Park

B.Eng. in Computer Engineering March 2010 - February 2017

Hongik University, Seoul, Republic of Korea Department of Computer Engineering

RESEARCH EXPERIENCE

Graduate Research Assistant August 2022 - Present

Virtual Reality Lab, Purdue University

PI: Nicoletta Adamo, Christos Mousas, Richard E. Mayer

Graduate Research Assistant August 2021 - May 2022

HRD Virtual Lab, Purdue University

PI: Mesut Akdere

Graduate Research Assistant March 2017 - February 2019

Interactive Media Lab, Hongik University

PI: Jun Park

TEACHING EXPERIENCE

Graduate Teaching Assistant August 2023 - Present

Purdue University, West Lafayette, IN Graduate Course: Virtual Environments

Graduate Teaching Assistant March 2017 - February 2018

Hongik University, Seoul, Republic of Korea

Undergraduate Course: Objected-oriented Programming, Computer Graphics

JOURNAL

- [1] **M. Choi**, D. Cui, M. Volonte, A. Koilias, D. Kao, and 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*, (TBA):TBA, 2024.
- [2] M. Choi, C. Mousas, N. Adamo, S. Patankar, K. Hauser, F. Zhao, and R. Mayer. Asap: Animation system for agent-based presentations. *The Visual Computer*, pages 1–16, 2024.
- [3] M. Choi, S. Guo, A. Koilias, M. Volonte, D. Kao, and 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*, 14(3):1–33, 2024.
- [4] S. Guo, M. Choi, D. Kao, and C. Mousas. Collaborating with my doppelganger: 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 (Proc. of ACM SIGGRAPH I3D 2024)*, 7(1):1–23, 2024.
- [5] F. Zhao, R. Mayer, N. Adamo-Vilani, C. Mousas, **M. Choi**, L. Lam, M. Mukanova, and K. Hauser. Recognizing and relating to the race/ethnicity and gender of animated pedagogical agents. *Journal of Educational Computing Research*, pages 675–701, 2024.
- [6] I.Azzam, K. Pate, F. Breidi, **M. Choi**, Y. Jiang, and C. Mousas. Mixed reality: A tool for investigating the complex design and mechanisms of a mechanically actuated digital pump. In *Actuators*, volume 12, page 419. MDPI, 2023.
- [7] H. Liu, **M. Choi**, D. Kao, and C. Mousas. Synthesizing game levels for collaborative gameplay in a shared virtual environment. *ACM Transactions on Interactive Intelligent Systems*, pages 1–36, 2023.

CONFERENCE

- [1] M. Choi, D. Cui, A. Koilias, and C. Mousas. The effects of virtual character's intelligence and task's complexity during an immersive jigsaw puzzle co-solving task. ACM SIGGRAPH Motion, Interaction, and Games, pages 1–12, 2024.
- [2] P. Acevedo, M. Choi, A. Magana, B. Benes, and C. Mousas. The effects of immersion and dimensionality in virtual reality science simulations: The case of charged particles. IEEE International Symposium on Mixed and Augmented Reality, pages 170-179, 2024.
- [3] P. Acevedo, M. Choi, H. Liu, D. Kao, and C. Mousas. Game level design to evoke spatial exploration: The influence of a secondary task. Companion Proceedings of the 2024 Annual Symposium on Computer-Human Interaction in Play, pages 4-10, 2024.
- [4] K. Hauser, C. Mousas, N. Adamo, M. Choi, R. Mayer, and F. Zhao. The effect of dynamic facial asymmetries on the perceived believability, appeal, and naturalness of animated agents. ACM Symposium on Applied Perception, pages 1–8, 2024.
- [5] M. Mukanova, N. Adamo, C. Mousas, M. Choi, K. Hauser, R. Mayer, and F. Zhao. Animated pedagogical agents performing affective gestures extracted from the gemep dataset: Can people recognize their emotions? International Conference on ArtsIT, Interactivity and Game Creation, pages 271–280, 2023.
- [6] M. Choi, A. Koilias, M. Volonte, D. Kao, and C. Mousas. Exploring the appearance and voice mismatch of virtual characters. IEEE International Symposium on Mixed and Augmented Reality Adjunct (ISMAR-Adjunct), pages 555-560, 2023.
- [7] L. Lam, M. Choi, M. Mukanova, K. Hauser, F. Zhao, R. Mayer, C. Mousas, and N. Adamo. Effects of body type and voice pitch on perceived audio-visual correspondence and believability of virtual characters. ACM Symposium on Applied Perception, pages 1–11, 2023.
- [8] L.-F. Yu, H. Huang, R. Alghofaili, C. Li, Y. Zhang, L. Yu, H. Liu, M. Choi, B. Bannan, and C. Mousas. Establishing design computing and extended reality facilities for remote virtual reality training. IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops, pages 216–220, 2023.
- [9] M. Choi, Y. Jiang, F. Breidi, C. Mousas, and M. Akdere. A mixed reality platform for collaborative technical assembly training. ACM Symposium on Virtual Reality Software and Technology, pages 1–2, 2022.
- [10] H. Liu, M. Choi, L. Yu, A. Koilias, L.-F. Yu, and C. Mousas. Synthesizing shared space virtual reality fire evacuation training drills. IEEE International Symposium on Mixed and Augmented Reality Adjunct (ISMAR-Adjunct), pages 459-464, 2022.
- [11] P. Acevedo, M. Choi, H. Liu, D. Kao, and C. Mousas. Procedural game level design to trigger spatial exploration. International Conference on the Foundations of Digital Games (PCG Workshop), pages 1–11, 2022.

AWARDS AND HONORS

The Best Paper published by the ACM Transactions on Interactive Intelligent Systems

2023

Professional Services	
Conference Refereeing	
IEEE Virtual Reality and 3D User Interfaces (IEEE VR)	2022, 2023
The ACM International Conference on Interactive Media Experiences (IMX)	2023, 2024
The Annual Symposium on Computer-Human Interaction in Play (CHI PLAY)	2022
Conference Program Committee	
International Conference on Computer Animation and Social Agents (CASA)	2025

RECOMMENDATION LETTERS

Dr. Christos Mousas

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Dr. Lap-Fai (Craig) Yu

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Dr. Dominic Kao

Department of Computer and Information Technology Purdue University West Lafayette, IN 47907, USA kaod@purdue.edu +1 609-902-9087

Dr. Matias Volonte

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