Tiffany D. Do

Assistant Professor · Computer Science (HCI)

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Education

University of Central Florida — *Orlando, FL*
Ph.D. Computer Science — *2020 - 2024*
- Advisor: Dr. Ryan P. McMahan

University of Texas at Dallas — *Richardson, TX*
M.S. Computer Science — *2018 - 2019*

University of Texas at Dallas — *Richardson, TX*
B.S. Computer Science — *2016 - 2018*

Research Appointments

2024- **Assistant Professor**, Computer Science, Drexel University
2024-2024 **Ph.D. Research Intern**, Google, Labs
2023-2023 **Ph.D. Research Intern**, Microsoft Research (MSR)
2020-2024 **Graduate Research Assistant**, University of Central Florida

Publications

Journal Proceedings

1. Sagar Ashok Vankit, Vivian Genaro Motti, **Tiffany D. Do**, Samaneh Zamanifard, Deyrel Diaz, Andrew Duchowski, Bart Knijnenburg and Matias Volonte. (2025). "Path Modeling of Visual Attention, User Perceptions, and Behavior Change Intentions in Conversations with Embodied Agents in VR." *To Appear In Computer Animation and Virtual Worlds (CAVW)*.
2. **Tiffany D. Do**, Juanita Benjamin, Camille Isabella Protko, and Ryan P. McMahan (2024). "Cultural Reflections in Virtual Reality: The Effects of User Ethnicity in Avatar Matching Experiences on Sense of Embodiment." *In IEEE Transactions on Visualization and Computer Graphics (IEEE TVCG))*, pp. 1-12. https://doi.org/10.1109/TVCG.2024.3456196. Acceptance rate: 16.9%.
3. **Tiffany D. Do**, Camille Isabella Protko, and Ryan P. McMahan (2024). "Stepping into the Right Shoes: The Effects of User-Matched Avatar Ethnicity and Gender on Sense of Embodiment in Virtual Reality." *In IEEE Transactions on Visualization and Computer Graphics (IEEE TVCG))*, pp. 1-10. https://doi.org/10.1109/TVCG.2024.3372067. Acceptance rate: 12.6%. 🏆 **IEEE VR 2024 Best Paper Honorable Mention (Top 3%)**
4. **Tiffany D. Do**, Steve Zelenty, Mar Gonzalez-Franco, and Ryan P. McMahan (2023). "VALID: A perceptually validated Virtual Avatar Library for Inclusion and Diversity." *In Front. Virtual Reality 4.* https://doi.org/10.3389/frvir.2023.1248915

Highly Selective Conference Proceedings (Acceptance Rates < %30)

1. **Tiffany D. Do**, Usama Bin Shafqat, Elise Ling, and Nikhil Sarda (2025). "PAIGE: Examining Learning Outcomes and Experiences with Personalized AI-Generated Educational Podcasts." *To Appear in Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems (CHI)*, pp. 1-12. https://doi.org/10.1145/3706598.3713460. Acceptance rate: 25.1% 🏆 **ACM CHI 2025 Best Paper (Top 1%)**
2. Alec G. Moore, **Tiffany D. Do**, Nicholas Ruozzi, and Ryan P. McMahan (2023). "Identifying Virtual Reality Users Across Domain-Specific Tasks: A Systematic Investigation of Tracked Features for Assembly." *In Proceedings of 2023 IEEE International Symposium on Mixed and Augmented Reality (ISMAR)*, pp. 1-10. https://doi.org/10.1109/ISMAR59233.2023.00054. Acceptance rate: 21.2%

3. Jacob Belga, **Tiffany D. Do**, Ryan Ghamandi, Ryan P. McMahan, and Joseph J. LaViola Jr. (2022). "Carousel: Improving the Accuracy of Virtual Reality Assessments for Inspection Training Tasks." *In ACM Symposium on Virtual Reality Software and Technology (VRST)*, pp. 1-10. https://doi.org/10.1145/3562939.3565618. Acceptance rate: 26.7%

4. **Tiffany D. Do**, Ryan P. McMahan, and Pamela J. Wisniewski. (2022). "A New Uncanny Valley? The Effects of Speech Fidelity and Human Listener Gender on Social Perceptions of a Virtual-Human Speaker." *In Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems (CHI)*, pp. 1-11. https://doi.org/10.1145/3491102.3517564. Acceptance rate: 24.7%

5. **Tiffany D. Do**, Joseph J. LaViola Jr., and Ryan P. McMahan. (2020). "The Effects of Object Shape, Fidelity, Color, and Luminance on Depth Perception in Handheld Mobile Augmented Reality." *In Proceedings of 2020 IEEE International Symposium on Mixed and Augmented Reality (ISMAR)*, pp. 1-9. https://doi.org/10.1109/ISMAR50242.2020.00026. Acceptance rate: 28.8%

Other Refereed Conference Proceedings

1. **Tiffany D. Do**, Martez Mott, John Tang, Sasa Junuzovic, Ann Paradiso, and Edward Cutrell (2025). "Exploring AI-Driven Affective Avatars for Autistic Adults and Adults with Social Anxiety in Virtual Meetings." *In Extended Abstracts of the 2025 CHI Conference on Human Factors in Computing Systems*, pp. 1-8. https://doi.org/10.1145/3706599.3719885. Acceptance rate: 32.8%

2. **Tiffany D. Do**, Mamtaj Akter, Zubin Choudhary, Roger Azevedo, and Ryan P. McMahan. (2022). "The Effects of an Embodied Pedagogical Agent's Synthetic Speech Accent on Learning Outcomes." *In Proceedings of the 2022 ACM International Conference on Multimodal Interaction (ICMI)*, pp. 1-9. https://doi.org/10.1145/3536221.3556587. Acceptance rate: 33%

3. **Tiffany D. Do**, Seong Ioi Wang, Dylan S. Yu, Matthew G. McMillian, and Ryan P. McMahan. (2021). "Using Machine Learning to Predict Game Outcomes Based on Player-Champion Experience in League of Legends." *In Proceedings of 2021 International Conference on the Foundations of Digital Games (FDG)*, pp. 1-5. https://doi.org/10.1145/3472538.3472579.

4. **Tiffany D. Do**, Dylan S. Yu, Salman Anwer, and Seong Ioi Wang. (2020). "Using Collaborative Filtering to Recommend Champions in League of Legends." *In Proceedings of 2020 IEEE Conference on Games (CoG)*, pp. 1-4. https://doi.org/10.1109/CoG47356.2020.9231735.

Refereed Extended Abstracts and Posters

[†]Undergraduate Advisee

1. **Tiffany D. Do** and Kareem Edouard (2025). "Voices of Learning: Generating Culturally Relevant Educational Podcasts with AI". *Considering Cultural and Linguistic Diversity in AI Applications Workshop (CALD-AI workshop).* pp. 1-2. https://doi.org/10.5281/zenodo.15270377

2. Camille Isabella Protko[†], Ryan P. McMahan, and **Tiffany D. Do** (2024). "Lessons Learned in Designing Racially Diverse Androgynous Avatars". *In 2024 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW).* pp. 1-2. https://doi.org/10.1109/VRW62533.2024.00178.

3. **Tiffany D. Do** (2021). "Designing Virtual Pedagogical Agents and Mentors for Extended Reality". *In Proceedings of 2021 IEEE International Symposium on Mixed and Augmented Reality Adjunct (ISMAR-Adjunct)*, IEEE, 2021, pp. 1-4. https://doi.org/10.1109/ISMAR-Adjunct54149.2021.00112.

4. **Tiffany D. Do**, Dylan S. Yu, Alyssa Katz, and Ryan P. McMahan. (2020). "Virtual Reality Training for Proper Recycling Behaviors". *In ICAT-EGVE 2020 - International Conference on Artificial Reality and Telexistence and Eurographics Symposium on Virtual Environments - Posters and Demos*, 2020, pp. 1-2. https://doi.org/10.2312/egve.20201284.

Professional Experience

Google (Labs@Google) *Mountain View, CA*

Research Intern, LangApps *May 2024 - Aug 2024*

- Conducted research on innovative applications of large language models (LLMs). Designed LLM-based prototypes in Python, emphasizing usability and real-world deployment.
- Led qualitative and quantitative user studies to evaluate effectiveness and usability of AI generated podcasts. Contributed to the NotebookLM AI podcast feature, deployed to over 9 million monthly users.
- Work recognized with a Best Paper at CHI 2025.
- Contributed to other confidential research initiatives (details redacted).

Microsoft Research (MSR) *Redmond, WA*

Research Intern, Ability Team, HCAIX (Human-Computing AI Experiences) Group *May 2023 - Aug 2023*

- Advised by Ed Cutrell, Martez Mott, and John Tang.
- Researched AI-driven affect and emotion in inclusive avatars using LLMs (GPT-4), Microsoft Mesh, and Unity (C#).
- Conducted a user study with adults with disabilities to enhance AI-driven avatar interactions.

Axxess Technology Solutions *Dallas, TX*

Backend Engineering Intern *May 2019 - Aug 2019*

- Developed home healthcare software as a C# .NET developer, focusing on backend patient experience.
- Built and tested APIs to enable secure access to patient and prescription data for external clients.
- Designed MySQL database tables to support automated patient prescription systems.

Awards, Fellowships, & Grants

2025	**Best Paper (Top 1%)**, ACM Conference on Human Factors in Computing Systems (CHI)	
2024	**Best Paper Honorable Mention (Top 3%)**, IEEE Virtual Reality and 3D User Interfaces (VR)	
2022	**Doctoral Research Support Fellowship**, University of Central Florida	
2016 - 2019	**Academic Excellence Scholarship Honors (Full scholarship)**, University of Texas at Dallas	*$ 72,953*
2018	**Grace Hopper Scholarship**, University of Texas at Dallas	

Teaching Experience

Spring ’25	**CS 345 Game Design and Development**, Instructor
Win. ’24	**CS 480T Augmented Reality Engineering**, Instructor
Spring ’24	**CAP 5115 Virtual Reality Engineering**, Graduate Teaching Assistant
Fall ’23	**CAP 3104 Foundations of HCI**, Graduate Teaching Assistant
Spring ’21	**CGS 3763 Operating Systems Concepts**, Graduate Teaching Assistant
Fall ’20	**COP 3502 Computer Science 1 in C**, Lab Instructor, Graduate Teaching Assistant
Spring ’20	**COP 3502 Computer Science 1 in C**, Lab Instructor, Graduate Teaching Assistant

Academic Service & Outreach

Academic Service

2025	**ACM Virtual Reality Software and Technology (VRST)**, Technical Program Committee
2025	**ACM Transactions on Computer-Human Interaction (TOCHI)**, Outreach Editor
2022	**ACM Multimedia (MM)**, Technical Program Committee

Peer Review

[†]Recognition for Outstanding Reviews

ACM CHI	**2022**, **2023, 2024[†], 2025[†]**
ACM CSCW	**2024**, **2025**
IEEE VR	**2022**, **2024, 2025**
IEEE ISMAR	**2022**, **2024**
ACM MM	**2021**, **2022**
Journal	**Springer Virtual Reality (2021)**, **IEEE SIGGRAPH (2024)**

Outreach

2025	**Drexel Women in Computing Society**, Faculty Advisor
2025	**Philly Codefest**, Judge
2022-2024	**Girls Who Code @ UCF**, Vice President, Co-founder
2020-2022	**ACM-Women (ACM-W) at UCF**, Mentor
2018-2025	**National Center for Women & IT (NCWIT)**, Aspirations in Computing Volunteer