

Logan Lane

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SUMMARY

- Third year Ph.D student at Virginia Tech researching advanced collaboration systems using AR/VR technologies
- Leveraged Unity, C#, and Photon Networking technologies to design and implement networked AR/VR experiences, enabling real-time collaborative interactions for advanced research projects
- Prior experience managing diverse students on various projects while an undergraduate student
- Previous experience developing mobile applications using Xcode, UIKit, and Swift

EDUCATION

Virginia Tech Ph.D. in Computer Science and Applications advised by Doug A. Bowman	Blacksburg, VA, USA Aug. 2021–Current
Virginia Tech MS in Computer Science and Applications advised by Doug A. Bowman	Blacksburg, VA, USA Aug. 2021–May 2024 (Expected)
University of Virginia's College at Wise B.S. in Management and Information Systems - 3.4/4.0 GPA	Wise, VA, USA May. 2018–May 2021

EXPERIENCE

Virginia Tech Graduate Research Assistant	Blacksburg, VA, USA May. 2022–Current
<ul style="list-style-type: none">– Conducted research under the supervision of Doug A. Bowman, specifically investigating spatially-aware augmented reality collaboration systems– Generated prototype applications using C#, Unity, and Photon Networking technologies	
Virginia Tech Graduate Teaching Assistant	Blacksburg, VA, USA Aug. 2021–May 2023
<ul style="list-style-type: none">– Provided assistance to over 200 undergraduate students during scheduled office hours for Professionalism in Computing, Introduction to Database Management, and Android Programming courses– Collaborated with professors and other teaching assistants to grade coursework throughout the semester	
University of Virginia ACCORD Intern	Remote May. 2020–Jul. 2021
<ul style="list-style-type: none">– Co-founded DevHub@Wise, a student software development community– Worked as project lead of InAttendance, an attendance app for the UVA Wise campus built using Swift– Collaborated with UVA administration and other interns to develop grant proposal for over \$40,000 of DevHub@Wise funding	

SKILLS

- **Programming Languages:** C++, C#, Swift, Python, SQL, Kotlin
- **Development Tools:** Unity 3D, Photon PUN/Fusion, Git, Xcode, Android Studio

PROJECTS

- **Augmented Reality Table-Top Football Experience (2023)**
Implemented an AR Unity application that recreates live NFL games in tabletop format by leveraging player movement data.
- **PlayStation VR Trophy Room (2022)**
Developed a Unity program that allows users to interact with their PlayStation trophy collection in VR
- **Remote Collaboration System for Meta Quest 2 (2022)**
Developed a remote, simulated augmented reality collaboration system for the Meta Quest 2
- **Virtual Loupes Augmented Reality Microsurgery Aid (2022)**
Extended functionality of existing virtual loupes prototype by porting software to the Varjo XR3
- **A Digital Twin Based Approach to Smart Lighting Design (2022)**
Developed methods and techniques to support smart lighting design in an immersive virtual reality experience
- **TweetCSVAnnotator (2021)**
Developed utility to rapidly annotate CSV entries for hate-speech detection algorithm using Swift

PUBLICATIONS

- [1] A. Giovannelli, F. Rodrigues, S. Davari, I. A. Tahmid, **L. Lane**, C. Connor, K. Davidson, G. N. Ramirez, B. David-John, and D. A. Bowman, “Clue hog: An immersive competitive lock-unlock experience using hook on go-go technique for authentication in the metaverse”, in *IEEE VR 2023*, 2023.
- [2] A. Giovannelli, J. Thomas Jr., **L. Lane**, F. Rodrigues, and D. A. Bowman, “Gestures vs. emojis: Comparing non-verbal reaction visualizations for immersive collaboration”, in *ISMAR 2023*, 2023.
- [3] J. Thomas, S. W. Lee, A. Giovannelli, **L. Lane**, and D. Bowman, “A communication-focused framework for understanding immersive collaboration experiences”, in *ISMAR 2023*, 2023.
- [4] E. Mohammadzaei, A. Giovannelli, **L. Lane**, and D. Gračanin, “A digital twin based approach to smart lighting design”, in *2022 Winter Simulation Conference (WSC)*, 2022.

SCHOLARSHIPS AND AWARDS

- UVA Wise Unsung Hero Award 2021
- TICE Total Achievement Award 2020
- Dr. Anne Crum Student Leadership Award 2015