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   Blacksburg, VA, USA
Ph.D. in Computer Science and Applications advised by Doug A. Bowman - 3.7/4.0 GPA   Aug. 2021–Current

University of Virginia's College at Wise   Wise, VA, USA
B.S. in Management and Information Systems - 3.4/4.0 GPA   May. 2018–May 2021

EXPERIENCE

Virginia Tech   Blacksburg, VA, USA
Graduate Research Assistant   May. 2022–Current

- 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   Blacksburg, VA, USA
Graduate Teaching Assistant   Aug. 2021–May 2023

- 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   Remote
ACCORD Intern   May. 2020–Jul. 2021

- 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. Mohammadrezaei, 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