

Ethan I. Kimmel

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Summary

Computer engineering student at Georgia Tech specializing in developing immersive experiences. Enjoys learning new concepts and is adept with both computer software and hardware. Develops robust applications and has published two papers. Has experience using 3D engines and published a WebXR application with hundreds of daily users. Seeking a summer 2025 software engineering internship.

Education

Georgia Institute of Technology

Expected Graduation Date: December 2026

Bachelor of Science in Computer Engineering, GPA - 3.92/4.00

Relevant coursework: Object-Oriented Programming, Data Structures and Algorithms, Programming Hardware/Software Systems, Digital Design Lab, Objects and Design, Intro to Computer Vision, Design and Analysis of Algorithms

Skills

Programming Languages: C#, Java, C, Assembly, SQL, JavaScript, C++, Python, HLSL.

Hardware: Meta Quest devices, Vuzix Z100, Apple Vision Pro, Arduino, Snap Spectacles, Raspberry Pi.

Software: Unity, Meta Interaction SDK, Unity XRI, Unreal Engine, WebXR, SQL, Blender, Microsoft Office, GitHub, Lens Studio, Nvidia Omniverse, AR.js, A-Frame, Niantic Studio.

Experience

XR Developer: Georgia Tech OIT Academic Research Technologies

May 2024 – October 2024

- Explored novel 3D development workflows for the creation of digital twins and extended reality experiences.
- Independently developed 6 MVPs and documented the strengths and limitations of the technology involved.
- Used Microsoft Mesh, Unity XRI, Meta XR SDK, WebXR, Wonderland Engine, Omniverse, and Niantic 8th Wall.

Researcher: Georgia Tech Contextual Computing Group

October 2023 – present

- Leading a head worn displays research team under Dr. Thad Starner investigating human-centered augmented reality design.
- Developed software to collect participant data from a Meta Quest 3, increasing repeatability of our experimental procedures.
- Implemented a novel real-time data acquisition method, increasing study quantifiability and strengthening results.
- Co-authored two papers, published in the ACM Digital Library.

Projects

Drum Simulator XR

July 2024 – September 2024

- Developed a WebXR drumming application in JavaScript using the Wonderland Engine, supports both AR and VR modes.
- Published on both Heyvr.io and a self-hosted website with 86,500 total plays.

Everything Quiz | Niantic Studio Developer Accelerator Fund

August 2024 – present

- Developed a web-based AI quiz game using an LLM to generate quizzes based on objects in the user's camera feed.
- Collaborated in a team of three, handling data transmission, core game mechanics, and integration with Niantic Studio.

SnapSecure | HackGT SnapAR Sponsor 1st Place

September 2024

- Worked together with a team of four to develop a novel gesture-based authentication method using AI for Snap Spectacles.
- Responsible for using JavaScript to collect data, authenticate users, and interact with IoT devices for an interactive experience.
- Learned Lens Studio to create an MVP, quickly adapting to a new 3D engine in a fast-paced hackathon environment.

Leadership

Executive board member: Georgia Tech Extended Reality Club

April 2024 – present

- Responsible for marketing and recruitment, oversaw membership increase of 235.4% in one semester.
- Leading a team currently tasked with creating a custom virtual reality headset featuring eye tracking and haptic gloves.
- Meet with board weekly to discuss fundraising, event hosting, marketing, and inter-club collaboration.

Publications

- Priyanka M. et al. 2024. Stepping into AR: Exploring Optimal Positioning for Monocular Head-Worn Displays for Reading on the Go. In Companion of the 2024 on ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp '24). Association for Computing Machinery, New York, NY, USA, 844–850. <https://doi.org/10.1145/3675094.3678383>
- Parth Arora et al. Comfortably Going Blank: Optimizing the Position of Optical Combiners for Monocular Head-Worn Displays During Inactivity. In Proceedings of the 2024 ACM International Symposium on Wearable Computers (ISWC '24). Association for Computing Machinery, New York, NY, USA, 148–151. <https://doi.org/10.1145/3675095.3676628>