

Aashiq Shaikh

Graphics Programmer

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👤 PROFILE

AR/VR Application and Graphics Engineer with 5 years of experience building and publishing AR/VR applications. Excited about designing and developing visuals for immersive spatial experiences. Looking for development positions in computer graphics and rendering. **(pronounced AH-shik)**

📁 EXPERIENCE

AR/VR Graduate Researcher, *Meteor Studio* 📄

Jan 2020 – Aug 2023 | Tempe, AZ

Developed and led AR/VR development for several multidisciplinary projects in collaboration with meteorology, criminology, film, sustainability and theater departments. Developed visual effects and technical artistry skills. Also managed/mentored 25+ undergraduate students in AR/VR development across all projects.

VR Graphics Programmer, *Dreamscape Immersive*

Aug 2022 – Dec 2022 | Los Angeles, CA

Worked on a production narrative VR experience, developing artist and programmer facing tools to speed up development. I used HLSL and C# in the Unity environment and regularly worked with low-level shader code to develop a ray marcher and landscape mesh editing tools.

AR/VR Unity Developer, *Emblematic Group*

Feb 2022 – Mar 2023 | Los Angeles, CA

Led the technical development of a historical narrative AR experience. I worked in the Unity engine and use HLSL and C#. Prototyped new volumetric video technologies and worked with 3D artists to optimize asset rendering.

AR Application Development Intern,

National Center for Atmospheric Research 📄

May 2019 – Aug 2019 | Boulder, CO

Developed a framework to create AR climate-related news articles that could be viewed with a mobile device.

AR/VR Undergraduate Researcher, *Meteor Studio* 📄

Jan 2017 – Dec 2019 | Tempe, AZ

Starting as a freshman, I worked as a student researcher for Meteor Studio. I developed my skills in AR/VR development, project management, and technical art. I published a paper on a programmable location-based AR data visualization framework (see **Publications**).

🎓 EDUCATION

Media Arts and Sciences, M.A., *Arizona State University*

2020 – 2021 | Tempe, AZ

GPA: 3.93

Computer Science, B.S., *Arizona State University*

2016 – 2019 | Tempe, AZ

Provost's Award Recipient, Dean's List for 7 consecutive semesters.

GPA: 3.92

🔗 REFERENCES

References available upon request.

📁 PROJECTS

Volumetric Video Streaming

Developed a pipeline for capturing, streaming, and rendering volumetric content in AR/VR. I specialized in the data representation and rendering components of the framework. Used Unity, .NET Core, HLSL, and Azure Kinect.

Illumination Estimation for Photorealistic AR Content on Mobile Devices, *GLEAM* 📄

I streamlined illumination estimation algorithms with compute shaders to take advantage of GPU parallelization, and created applications that utilized this framework. I also added support for multiple AR platforms. Used Unity, ARKit, ARFoundation, and HLSL.

AR Framework for Map-based Immersive Data Visualization, *Coordinate* 📄

Designed and developed an AR mobile application/framework that augments a physical map with visualizations of location-based data using user-created data spreadsheets. I worked with our university's executive office to design this as a presentation tool for investor meetings. Used Unity, Vuforia, and HLSL.

CPU Ray Tracer Walkthrough 📄

Developing a CPU ray tracer in C++ to validate my understanding of the graphics pipeline from the ground up and break down all the math involved.

📄 PUBLICATIONS

Adaptive 5G systems for interactive volumetric sports analysis in augmented reality, *ACM MobiSys* 📄

2022

Received Best Demo Award at MobiSys 2022

Characterizing real-time dense point cloud capture and streaming on mobile devices, *ACM HotEdgeVideo @ MobiCom* 📄

2021

2021

Coordinate: A Spreadsheet-Programmable Augmented Reality Framework for Immersive Map-Based Visualizations, *IEEE AIVR* 📄

2019

➤ TECHNICAL SKILLS

AR/VR Development (*Unity, ARKit, Oculus, Azure Kinect, Volumetric Video*)

Graphics Programming (*HLSL, C, C++, Graphics Pipeline, Linear Algebra*)

Media Production (*Blender, Logic Pro, Illustrator, Photoshop, Final Cut Pro*)