

Aashiq Shaikh

Graphics Engineer

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☎ 408-478-1700 📁 Portfolio 🔗 LinkedIn 🐙 Github

👤 PROFILE

Graphics Engineer with 6 years of Unity experience and 2 years of real-time graphics experience. Looking for development positions in computer graphics and rendering.

Name pronounced AH-shik Shake.

📁 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 prototype historical narrative AR experience. I worked in the Unity engine and use HLSL and C#. Tested 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

OpenGL & C++ Graphics Engine,

Kenoma Engine ✨

Real-time graphics engine built with OpenGL and C++. Features real-time gltf rendering with multiple types of lighting (point, directional, spotlight), texture and model loading.

Volumetric Video Streaming

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

Ray Tracer, Aeon Tracer ✨

CPU ray tracer developed with modern C++. Features object rendering with metallic and diffused materials, reflection/refraction, a physically-based camera system and BVH optimizations.

AR Framework for Map-based Immersive Data Visualization, Coordinate ✨

AR iOS application that renders large location-based datasets on physical maps, built for ASU executive office as a presentation tool for investor meetings. Created with Unity, Vuforia, and HLSL.

Illumination Estimation for Photorealistic AR Content on Mobile Devices, GLEAM ✨

AR illumination estimation framework to enable realistic lighting and reflections on virtual objects in AR. I streamlined estimation algorithms with compute shaders to take advantage of GPU parallelization. Used Unity, ARKit, ARFoundation, and HLSL.

📄 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

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

2019

➤ TECHNICAL SKILLS

Graphics Programming (HLSL, OpenGL, C, C++, Rasterization, Ray Tracing, Ray Marching, RenderDoc, Graphics Pipeline, Linear Algebra)

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

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