Jack Yang

Software Engineer

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Professional Experience

Software Engineer at Kalloc Studios, Fuzor - Full-time
July 2023 - July 2025
- Developed new features on Fuzor, 3D construction software in an original graphics engine.
- Optimized legacy C++ code using strategies like struct packing and fixed memory allocation, resulting in improved runtime performance.
- Helped create Fuzor Web Viewer, implementing a React frontend to visualize 3D geometry in a lightweight web application.
- Designed and implemented a MySQL database and RESTful API to facilitate smooth file upload and sharing between Fuzor's desktop and web applications.
- Refactored Fuzor's C# integrations with Autodesk Revit, Navisworks, and other 3D CAD software, achieving up to 100% faster sync speeds by optimizing scene traversal.
- Built an in-house Issue Tracker tool with React, allowing management and QA to track open issues and see historical data at a glance.

Unity Developer at FoundrySix - Contract
Sep 2021 - July 2023
- Implemented gameplay systems for ARealm, a fantasy AR MMORPG, in the Unity engine.
- Created level randomization and enemy behavior scripts based off of broad design directions.
- Rapidly prototyped AR experiences to be presented at AR/VR investor events and conferences.
- Troubleshooted and published mobile test builds of ARealm for both iOS and Android.

Projects

- **Monte Carlo Path Tracer:** Robust ray-tracer graphics program made for Advanced Computer Graphics, simulating realistic lighting in various 3D scenes. Study in indirect lighting, material rendering, and modern lighting standards.

Education

University of California, San Diego
Oct 2018 - Jun 2022
- **Major**: Computer Science, B.S.
- **Minor**: English Literature
- **Coursework**: Data Structures and Algorithms, Advanced Computer Graphics, Web Design and Development

Skills

C++, C#, React, MySQL, JavaScript, Java, HTML, CSS, Python, OpenGL, AWS (EC2, Lambda, S3)