Jack Yang

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Summary

Mid-level software engineer with deep experience in C++, C#, and full-stack web development. Delivered performance-critical features for Fuzor, a 3D construction platform, cutting geometry sync times from Autodesk products by up to half. Developed a lightweight React companion app for Fuzor for the 2026 release, using technologies all along the stack, from designing MySQL database schema, to creating a RESTful Java API, to implementing React UX.

Professional Experience

Kalloc Studios, Fuzor **Jul 2023 - Jul 2025**
Software Engineer *Carlsbad, CA*

- Developed new features on Fuzor, 3D software built in an original graphics engine, to support customers throughout the construction and engineering industry.
- Optimized legacy C++ code using strategies like struct packing and fixed memory allocation, resulting in improved runtime performance across the board.
- Helped create Fuzor 2026 Web Viewer, implementing a React app hosted on AWS, which allowed customers to upload user files to the cloud and visualize 3D geometry in a lightweight web application.
- Designed and implemented a MySQL database and RESTful Java API to facilitate smooth file upload and easy 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 with optimized scene traversal.
- Built an in-house Issue Tracker tool with React, allowing management and QA to track open bugs and see historical data at a glance.

FoundrySix **Sep 2021 - Jul 2023**
Unity Developer *Los Angeles, CA*

- Implemented core gameplay systems for ARealm, a fantasy AR MMORPG, using C# and Unity, which enabled the release of the game's Alpha and secured early user testing.
- Designed and implemented algorithms in C# for features like level randomization and enemy AI to meet game design directions and establish an engaging core play loop.
- Prototyped AR experiences in Meta's Spark AR Studio to be presented at AR/VR investor events and conferences, exploring what was possible in the augmented reality space.
- Troubleshot and published mobile test builds of ARealm for both iOS and Android, inviting and responding to player feedback to create the best user experiences possible.

Projects

Monte Carlo Path Tracer | View Report **Jan 2021 - Mar 2021**

- 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**
B.S., Computer Science *San Diego, CA*

- **GPA:** 3.65
- **Achievements:** Minor in English Literature, Design Director at ACM UCSD (2020)
- **Coursework:** Data Structures and Algorithms, Advanced Computer Graphics, Web Design and Development, Software Engineering, Interaction Design

Skills

- C++, C#, React, MySQL, JavaScript, Java, HTML, CSS, Python, OpenGL, AWS (EC2, Lambda, S3), Restful API, Database Development, AWS, Git, GitHub, Game Development