DAVID RIZKO

SOFTWARE DEVELOPER

CONTACT

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📍 Orange County + Los Angeles Area

SKILLS

Data Structures Analysis and Implementation

Operating Systems

Project in Artificial Intelligence

Computer Networks

Game Engine Lab

Multiplayer Game Project

Game Capstone I & II

Database Management Systems

EDUCATION

B.S. in Computer Game Science

University of California, Irvine

March 2024

PROGRAMMING LANGUAGES

C++/C#/C

Python

Java

SQL

RISC Assembly

SOFTWARE

Unreal Engine 5

Unity

Godot

Git

MIPS

WORK EXPERIENCE

Embedded Software Engineer

Imbed LLC., Burbank CA   March 2024 - Present, May 2021 - September 2021

- Designed embedded software and interfaces for the Digital Cinema industry.
- Developed C++ XML and MXF parsers to enable Digital Cinema movie playback.
- Optimized the JPEG2000 decoder by using concurrent programming principles, reducing initial code execution time from 4 seconds to 2 seconds.
- Translated C/C++ code to FPGA for testing the software model on SoC, preparing for final product release.

Virtual Reality Developer, Game Developer Consultant

AI Coach, University of California, Irvine   March 2024 - Present

- Developed, consulted, and co-led a team of Master of Engineering students at UCI to create a virtual and mixed reality gym coach using the Unity Engine.
- Created the virtual environment, animations, interactions, and scripting for real-time virtual space tracking.
- Designed proprietary mesh sensors to accurately model the user in real-time within the virtual space.

Project Lead, Engineer Lead, Lead Software Developer

The 9th Circle, Irvine, CA   September 2023 - Present

- Led and managed a team of 18 individuals, overseeing weekly task assignments for sprints.
- Integrated original art models and animations for a cohesive visual experience with low render times on the threads, improving GPU render times from 27ms to 8ms per frame.
- Engineered software infrastructure using a blend of blueprints and C++ code in Unreal Engine 5 in order to optimize the performance of gameplay from 78ms processing time to an average of 28ms.
- Spearheaded the development of core mechanics.
- Programmed the procedural generator for dynamic and unpredictable gameplay allowing players to play over 200 different permutations of the core game loop.
- Established comprehensive project documentation for clarity and reference.
- Maintained an organized and efficient working tree in the GitHub repository using open-source methodology; switched to Git Flow working tree methodology after 4 months of development to avoid the use of semaphore locks.

Gameplay Engineer, Software Engineer, Plugin Developer

Quantum Leap, Irvine, CA   March 2023 - June 2023

- Designed and developed software infrastructure for a rhythm-based parkour game.
- Used public APIs to generate beat maps based on player selected sound track and connected API with a self-built script to generate a level of platforms and walls.
- Created an online Plug-in for Network play in Unreal Engine 5.

STEM and Game Instructor, Assistant Manag

Code Ninja's, ICosta Mesa, CA   August 2023 - May 2024

- Provided instruction on a diverse set of game development platforms and engines for teenagers
- Refined Unity Level Curriculum for higher level students to teach industry standards as well as familiarity with engine tools and assets.