Cory Huynh
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Education

University of California - San Diego, La Jolla, CA
Master of Science in Computer Engineering — Sep 2023 – Jun 2024
University of California - San Diego, La Jolla, CA
Bachelor of Science in Computer Engineering — Sep 2019 – Jun 2023
Overall GPA: 3.92/4.0
Honors: Graduated Cum Laude; Provost Honors 2019-2023

Experience

Amazon Web Services, Seattle, WA
Software Development Engineering Intern — Summer 2022, Summer 2023

- Implemented an automation framework using AWS Cloud Services and Java into AWS' production Product Lifecycle Management software. This initiative addressed a critical data quality process that had previously relied on manual efforts from the configuration management team and is projected to save weeks-worth of menial tasks annually.
- Developed a project using AWS Cloud Services and Java that overhauled a system performing BOM rollups on a Product Lifecycle Management software to address serious security issues, improve data validation, increase efficiency, and unlock further scalability.
- Wrote detailed design documents that effectively communicated the architectural design to my team and allowed for the continuing iteration of my projects.

Calnetix Technologies, Cerritos, CA
Power Electronics Engineering Intern — Summer 2021

- Created a graph view for motor control GUI (Graphical User Interface) in Visual Basic that centralized the stream of data coming from a connected motor.
- Diagnosed problems that caused GUI's performance to drop and administered solutions that improved user responsiveness and productivity.

Projects

Mad Martians – *C++, OpenGL, GLSL, Git/GitHub* — 2023
3D multiplayer tower defense game created without relying on a game engine by seven people.

- Spearheaded development of a custom graphics engine using C++ and OpenGL with an Entity Component System design approach that served as a backbone to render all game objects using data received from the game server.
- Programmed a physics-based particles system and custom animations contained in vertex shaders

Nature Photography VR – *Unity Game Engine, C#, Git/GitHub* — 2023
Virtual Reality Game developed for the Oculus Quest 2 by group of two.

- Envisioned and brought to life the core aspects of the game including – world/environment aesthetics, moving by drawing on the ground, intuitive virtual camera controls, and photo gallery system.
- Won best aesthetics and most intuitive controls in the class (out of 15 other teams)

Path Tracer – *C++* — 2022
Program that parses a file containing data for a scene and renders it using path tracing techniques.

- Implemented Features: Bounding Volume Hierarchy acceleration structure, Russian roulette path termination, modified Phong BRDF, GGX Microfacet BRDF, and multiple importance sampling (from next event estimation and BRDF importance sampling).

Autonomous RC Car – *Python, OpenCV, Linux* — 2022
Three-person project to turn an RC Car equipped with a servo, battery, and motor into an autonomous vehicle.

- Employed DonkeyCar for machine learning experiments using motor and servo data with images taken while driving
- Implemented computer-vision based lane detection using OpenCV and Python
- Integrated object detection from the COCO (Common Objects in Context) dataset

Skills

Programming Languages C++, Java, C#, Python, Kotlin, JavaScript, HTML/CSS, GLSL
Tools and Other Software OpenGL, Unity, Git, Android Studio, AWS