

Amir Azmi

Graphics Engineer

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ACADEMIC EXPERIENCE

Graphics Engineer

Aug 2019 - Present

Custom C++ Engine

(Solo)

An ECS engine that uses deferred and forward rendering to display images

- Architected custom C++ engine from scratch following a data driven ECS style approach
- Designed a custom C++ graphics system in OpenGL 4.4 which renders entities using deferred rendering based on user choice
- Implemented OBJ file parser to load models into the mesh data
- Integrated ImGui to hot re-load different models and shaders on the fly
- Wrote Phong Shader with the use of SSBO for multiple lights in the scene

Graphics Engineer – Rising Tide

Aug 2018 – Sept 2019

Project: Gemini

(Team of 13)

*A 2-player co-op action adventure platformer built in custom C++ engine on **Steam***

- Developed a 2D forward renderer in OpenGL 4.4 for sprite and texture rendering using a batch rendering technique
- Integrated a particle system renderer in OpenGL 4.4 and developed an editor for the particle system in ImGui for designers to use
- Constructed the Lighting System with the help of lead graphics programmer

Graphics Engineer – Norse Code

Dec 2017 – Apr 2019

Zombie Boy

(Team of 5)

A 2D platformer where you drag and drop in a level built in custom C engine

- Architected custom sprite and texture renderer using an OpenGL wrapper
- Designed and implemented health and damage system for the player
- Developed movement patterns for AI with the use of finite state machines

WORK EXPERIENCE

Software Developer Intern – GreenSky Credit

Nov 2015 – Jun 2016

- Developed an internal application using Java to track user information for the sales department

EDUCATION

DigiPen Institute of Technology

Sept 2017 – Apr 2021

Bachelor of Science in Computer Science in Real-Time Interactive Simulations

ACHIEVEMENTS

DigiPen PAX West 2019

(Project: Gemini)

SKILLS

LANGUAGES

C/C++

GLSL

C#

JAVA

SOFTWARE AND TOOLS

Git | Perforce | TortoiseSVN

Visual Studio 2019

Windows | Linux Mint 18.3

Unity

Maya 2017

Dr. Memory | Valgrind

ImGui

Doxygen

OpenGL 4.4

RenderDoc

MATHEMATICS

3D Math

Linear Algebra

Calculus I/II

Discrete Mathematics

PERSONAL

SPOKEN LANGUAGES

English (Fluent)

Hindi (Fluent)

Japanese (Novice)

INTERESTS

Game Jams

Basketball

Table Tennis

Rock Climbing