

Zachary McIlwain

2654 Rayma Court, Reno, CA 89503 | (916) 934-3599 | ZacharyAMcIlwain@gmail.com

Check out my website: <https://zeratulaud.github.io/Portfolio/>

Education

University of Nevada Reno:

B.S. Computer Science and Engineering : Minor in Math

Graduation Date May 2019

Skills

- Game engine creation from scratch.
- Shader Programming including advanced lighting models and shadow mapping.
- Object Oriented programming experience.
- Responsive website building
- Data Intensive computing with hadoop

Languages:

C++, C#, C, javascript, html and, CSS.

Development Tools:

Unity, Unreal Engine 4, Godot, Hadoop, Visual Studio,

Libraries:

OpenGL, BulletPhysics, Ogre

Modeling:

Blender, AutoCAD

Projects

3D Donkey Kong

- Re-created the classic arcade Donkey Kong in a 3D environment with simulated physics.
- Worked with various C++ libraries including Opengl, Bullet Physics and imgui.
- Created other graphics simulations such as the solar system and a pinball game.

AIMS

- Updated an outdated codebase in a broken state used for teleoperation of a robot in a simulated environment on the oculus rift.
- Adapted the code base to work with a Pioneer 3 robot with different sensors available.
- Dynamic level building from lidar data in a unreal engine 4 environment

Work Experience

AVMS A/V Technician | Reno, NV

2017-present

- Construct complex solutions to circumvent the limitations of providing professional A/V at a cost that a customer is acceptable with.

A/V Link Tech at Microsoft | Reno, NV

2016-2017

- Ran daily checks on pre-installed A/V systems using signal flow to debug issues with the network or missing signal.
- Setup Personalized networks and troubleshoot internet connectivity problems.

ASUN Sound and Lighting Sr. Technician / Lighting Director | Reno, NV

2015-2017

- Worked with a team to setup school events according to the customers needs.
- Held trainings on how to use lighting controllers and effectively program them for events.
- Researched