

Zachary McIlwain

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Education

University of Nevada Reno:

Expected Graduation May 2019

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

Laguna Creek High School Graduate - Class of 2015

International Baccalaureate Candidate Student

Relevant Coursework:

Computer Graphics, Game Engine Architecture, Database Management Systems, Embedded Systems, Engineering communications, Operating systems, Virtual Reality,

Work Experience

AVMS A/V Technician | Reno, NV

2017-present

- Construct Technical diagrams specifying lighting and audio configurations
- Setup Personalized networks and troubleshooting internet connectivity problems
- Worked with the hotel's banquet staff to clean and set up aesthetically pleasing environments for events to be held

A/V Link Tech at Microsoft | Reno, NV

2016-2017

- Ran daily checks on A/V enabled rooms to check for technical failures
- Used signal flow daily to diagnose problems with pre-installed AV systems
- Set up various presentations for Microsoft meetings and events

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

2015-2017

- Frequently researched new equipment to train other employees how to use it
- Dealt with event coordinators during events to make sure all specifications are met
- Experience with delegating responsibilities between employees during large events
- Programming of lighting controllers for events

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

- Teleoperation of a robot in a simulated environment on the oculus rift.
- Dynamic level building from lidar data in a unreal engine 4 environment.

Additional Skills

- Game engine creation from scratch
- Shader Programming including advanced lighting models and shadow mapping
- Experience with Unity, Unreal Engine 4, OpenGL, Blender and, AutoCAD
- Signal Flow for Technical Troubleshooting and, program debugging
- Programming experience in C, C++, Java, Javascript

- Object Oriented programming experience