Alexander Gonzales

agonzales98769@gmail.com ❖ (210) 710-8798 ❖ College Station, TX

Work Experience

Texas A&M Department of Recreational Sports — April 2022 – Present

Multimedia Assistant — *College Station, TX*

- Assist with the development of promotional material for various student recreational events across campus
- Help prepare multimedia content for social media platforms
- Conduct on-site shoots using various cameras
- Participate in weekly meetings to provide regular updates on project development/progress

Education

Texas A&M University, Texas A&M Engineering — Fall 2019 – Present

Major: Computer Science, Minor: Philosophy — *College Station, TX*

- Graduating Spring 2024
- Craig and Galen Brown Engineering Honors student, 2020-2021 academic year
- Studied Public Health in Bonn, Germany, Summer 2022

Relevant Coursework:

- Computer Graphics
- Computer Animation
- Virtual Reality
- Software Engineering
- Artificial Intelligence

Projects

Multiplayer VR Minigolf

https://github.com/jaguilar23/VR4_golf/tree/main

- Collaborative project developed on Unity3D, utilizing a cloud on Photon for multiplayer
- Focused on core mechanics, including multiplayer synchronization, golf ball physics/interactions, and transferring information to each individual player's scoreboard
- Submitted for showcase for university visualization event, called Viz-a-GoGo, demonstrating effective gameplay and VR design
- Submitted to the Special Interest Group on Computer Graphics and Interactive Techniques conference under the guidance of the professor

Matlab Unreal Engine Simulation with ROS 2 Interface

- Simulated driving scene using Matlab, integrated with the Robot Operating System (ROS2)
- Develop nodes that produces a local path planner for agent vehicles
- Creating different traffic scenarios for testing

Heavy Machinery Safety System

- Collaborative project for the SICK $10K Challenge
- Utilize a TiM-P 2d LiDAR sensor to enhance worker safety around heavy machinery
- Developed a Gantt chart to delegate project progress and to establish flexible deadlines

Technical Skills & Interests

- **Programming Languages:** C++, C#, Java, Python, Lua, Javascript/HTML/CSS, SQL
- **Frameworks/Libraries:** Ruby on Rails, Node.js
- **Tools:** Unity (both 2D and 3D), OpenGL, Unreal Engine 4 & 5, Godot, Git, Ubuntu, Blender, AWS, Autodesk
- **Interests:** Participating in hackathons, game development, computer graphics, volunteering