

Alexander Gonzales

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Education

Texas A&M University, Texas A&M Engineering

Fall 2019 – May 2024

Bachelor of Science, Major in Computer Science, Minor in Philosophy

College Station, TX

- 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
- Artificial Intelligence

Work Experience

Texas A&M School of Architecture

May 2024 – July 2024

Research Assistant

College Station, TX

- Main developer for an educational mixed reality Unity application that simulates construction site management tasks, tailored for a secondary educational audience
- Collaborated with construction science experts to accurately emulate sensor technology and replicate common construction site activities
- Implemented a code block system to teach students how to optimize construction tasks for improved safety, efficiency, and cost-effectiveness

Texas A&M Department of Recreational Sports

April 2022 – May 2024

Multimedia Assistant

College Station, TX

- Assist with the development of promotional material for university recreational events
- Conduct on-site shoots using various cameras

Projects

Multiplayer VR Minigolf

https://github.com/jagular23/VR4_golf/tree/main

- Collaborative project developed on Unity3D
- Focused on core mechanics, including multiplayer synchronization, golf ball physics/interactions, and transferring information to each individual player's scoreboard
- Showcased at a university visualization exhibit, called Viz-a-GoGo, demonstrating effective environmental and technical design in a VR setting
- Submitted to ACM SIGGRAPH 2024 under the Faculty Submitted Student Work Exhibition

Simulated Driving using Matlab Unreal Engine 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

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, UE4/5, Godot, Git, Ubuntu, Blender, Maya, GIMP, Autodesk, Adobe Premiere Pro, Adobe Photoshop
- **Interests:** Participating in hackathons, game development, computer graphics, volunteering