Alexander Gonzales

agonzales98769@gmail.com ❖ (210) 710-8798 ❖ Fair Oaks Ranch, TX

Summary of Qualifications

- **Immersive Development:** Proficient in developing interactive and immersive environments using Unity3D and WebXR, with a focus on real-time system feedback
- **Technical Experience:** Proficient in developing computer vision algorithms (C++, Python), real-time 3D rendering (Unity, UE5, OpenGL), and optimizing algorithms for GPUs
- **Project Experience:** Led development of an educational mixed reality Unity application; developed a multiplayer VR minigolf game; developed simulated driving application using Matlab, Unreal Engine, and ROS2
- **Tools:** Proficient in Unity, UE5, Blender, and Maya with experience in C++, C#, and Python

Work Experience

Digital Domino Marketing   **February 2025 – Present**
Digital Media Specialist / Web Developer   *Boerne, TX*

- Contribute to strategic development, content creation, and platform enhancement across multiple industries
- Translate designs in Adobe Photoshop into responsive landing pages for clients, with an emphasis on mobile friendliness
- Collaborate with marketing strategists to align content with branding and campaign goals

Texas A&M School of Architecture   **May 2024 – August 2024**
Research Software Engineer   *College Station, TX*

- Main developer for an educational mixed reality Unity application for HTC Vive 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
- Provided on-site multimedia coverage employing multi-camera setups

Projects

Multiplayer VR Minigolf

- VR game for the Quest 2; focused on core mechanics, including multiplayer synchronization, golf ball physics, and scoreboard functionality
- Showcased at ACM SIGGRAPH 2024 under the Faculty Submitted Student Work Exhibition
- Exhibited at university student showcase, called Viz-a-GoGo, by the Department of Visualization

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, and different traffic scenarios for testing

Technical Skills & Interests

- **Programming Languages:** C++, C#, Java, Python, Javascript/HTML/CSS, SQL
- **Tools:** Unity, UE4/5, OpenGL, Fusion 360, Blender, Maya, Git, Adobe Dreamweaver, Ubuntu, Autodesk, ROS2
- **Interests:** Participating in hackathons, game development, computer graphics, volunteering

Education

Texas A&M University, Texas A&M Engineering
Bachelor of Science, Major in Computer Science, Minor in Philosophy   *College Station, TX*

- Craig and Galen Brown Engineering Honors student, 2020-2021 academic year

Relevant Coursework: Virtual Reality, Artificial Intelligence, Computer Graphics, Computer Animation