

Zachary Russ

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North Augusta, SC

SKILLS

- C++
- Blender
- Python

EXPOSURE

- Java
- JavaScript
- MySQL

EDUCATION

Bachelor of Science in Computer Science

Clemson University

Minor: Digital Production Arts

May 2022

Clemson, SC

GPA: 3.5/4.0

WORK EXPERIENCE

Research Assistant

Motion Planning Lab, Clemson University

Jan – July 2022

Clemson, SC

- Collaborated with Dr. Ioannis Karamouzas and Alex Day on a large ROS-based social navigation robotics project
- Automated XML scenario generation using C++
- Created a visualizer in Unity/C# to view and playback robot navigation recordings

VOLUNTEER EXPERIENCE

Graphic Design Experience

Camp Grace Design Committee

2016 – Present

North Augusta, SC

- Composited family portraits in Blender with green screen
- Designed annual logos for a local church retreat

PROJECTS

VR Animal Population Simulator in Unity

University VR/Unity/C# Project

Sep 2021

Clemson, SC

- Created an educational VR game in Unity about animal populations
- Implemented hunger, thirst, aging, and reproduction in the animals
- Collaborated with two other developers

Mandelbrot Set Exploration Application

University C++/OpenGL Project

Feb – Apr 2022

Clemson, SC

- Created a Mandelbrot set exploration application in C++/OpenGL
- Implemented bilinear interpolation, dynamic pixel skipping, and coloring techniques
- Awarded the *Outstanding Undergraduate Project* award from Clemson University's School of Computing for the project

Ray-Tracer

University C++ Project

Feb – Apr 2022

Clemson, SC

- Wrote a ray-tracer from scratch in C++
- Extended the project by implementing shadows and multi-sample anti-aliasing

Sever

Personal Unity/C# Project

Nov 2022 - Present

North Augusta, SC

- Began writing a point-and-click game-building system in C# for Unity
- Designed a controller that can play multiple animations simultaneously
- Created clickable interactables that move the player or play animations