DYLAN ASCENCIO

Software Engineer

CONTACT

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Raleigh, NC
Willing to Relocate

LinkedIn GitHub

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EDUCATION

Bachelor of Science
Concentration in Game Design

University of Wisconsin-Stout
Sept 2015 - May 2020

Menomonie, WI

SKILLS

- C/C++
- C#/.NET
  - WPF
- Python
- LUA
- SQL
- Dear ImGui
- OpenGL
- Unreal Engine 4 and 5
- Reverse Engineering
  - IDA Pro
  - Ghidra
- Debugging

WORK EXPERIENCE

Tools and Engine Programmer
Yacht Club Games
January 2024 - April 2024 / Los Angeles, CA

- Worked with a small team to design and implement improvements to a proprietary game engine in C++
- Created a toolchain for converting blend shape animation data from Autodesk FBX files into a custom format and playing them back at runtime
- Created a level editor system for non-linear deformers for 3D collision meshes, including sine, bend, and twist

Junior Programmer
Virtual Heroes
July 2022 - December 2023 / Raleigh, NC

- Developed training simulations for both humans and autonomous agents in Unreal Engine 4
- Implemented a simulation of an Augmented Reality system, which can be seen in a company promotional video here
- Designed, implemented, and maintained an editor for training scenarios to be consumed by an Unreal Engine 4 application

Programming Contractor
Gears for Breakfast
June 2020 - June 2022 / Denmark

- Created gameplay objects and UI systems for an unannounced project in Unreal Engine 5
- Implemented an actor for creating fences by tiling 3D models along a spline
- Prototyped AI for a fast-moving enemy character that travels in a vehicle along splines

PROJECTS

NaviGator (Repository)
Creator
2024

- Created a library for loading and modifying various data formats from the 2018 Rockstar game *Red Dead Redemption 2*, such as 3D model data, text data, and navigation meshes
- Compiled existing open-source projects to implement a virtual filesystem which allows NaviGator to access game assets directly from their shipped, archived forms
- Designed and implemented a 3D editor for train track splines, including handles for modifying spline curvature and the ability to create junctions across tracks; see Railway Editor GitHub wiki page

Booldozer (Repository)
Co-creator
2021 - Current

- Worked together to create a level editor for the 2001 Nintendo game *Luigi's Mansion*
- Reverse-engineered the level layout file formats and built a flexible loading and saving system
- Implemented a hierarchy system based on the Document Object Model interface to make editing level layouts more intuitive
- Wrote a patch for the game code to load an asset type from files on-disc, rather than from static data in the game's executable

Chao in Unreal Engine 4 (Repository)
Creator
2020

- Built a version of the Chao virtual pets from the 1998 Sega game *Sonic Adventure* in Unreal Engine 4
- Implemented an extensible behavior system based on "needs" values and probabilities using Unreal Engine 4's Behavior Tree system
- Wrote a toolchain for converting 3D model and animation data from *Sonic Adventure* into formats consumable by Unreal Engine 4