DANNY GILLIES
Generalist & UE4 Developer

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👤 ABOUT

Born and raised in New York, moved to the West Coast for new experiences, and then back to the East Coast. Travelled to compete in video games and now working as a UE4 Engineer.

💼 WORK EXPERIENCE

Lead Core Platform Engineer, AIReverie, Inc.

January 2021 - Present

AI.Reverie is a simulation platform that trains AI to understand the world. https://aireverie.com
- Architected and implemented new perforce stream solution to fit our project structure.
- Improved our implementation of Unreal Game Sync to better facilitate team, including setup of distributing precompiled editors for non-engineers.
- Managed merging and organizing content and source code across a perforce depot used by a team of 15+ developers.
- Created a style guide to go over best practices across the entire team and all projects, combined with adding a linter tool to UE4 to allow an easy way to check against the style guide.
- Directly managed a team of 4 technical artists and engineers across Houdini and UE4 in very rapid prototyping of systems and tools for synthetic data generation.

UE4 C++ Engineer, AIReverie, Inc.

May 2018 - January 2021

AI.Reverie is a simulation platform that trains AI to understand the world. https://aireverie.com
- Created DLC system in UE4 to download environments from S3 using authentication.
- Created login/user profile system in UE4 with associated permissions for access to specific environments and selectable pawns.
- Customized and set up Unreal Game Sync to allow for easy use of perforce.
- Created a road generation system based on open street maps data, including intersections and AI vehicles.
- Designed and implemented a full-stack system to automate capturing images in UE4 on both remote and local machines.
- Packaged and distributed installable versions of our simulations to multiple clients, providing support and usage instructions. This contained a local version of the python API used to start captures.
- Provided general engineering support to a team of 5 technical artists and 4 Houdini artists.
- Upgrade internal UE4 to new versions released by Epic as necessary.
- Modified UE4 source code to better facilitate the needs of the development team.
- Created tools for technical artists to use, and taught best practices and new ways to build systems using blueprints more efficiently.
- Developed the core platform for generating an extremely high quantity of synthetic data very quickly, across multiple industries.

Game Developer, Elevate Labs

September 2017 - January 2018

Elevate is a new type of cognitive training tool designed to build communication and analytical skills.
- Designed and built prototypes for new exercises.
- Modified existing games to allow support for IPhone X.
- Added new instances to data warehouse content testing pipeline.

Game Developer, Piper, Inc.

October 2016 - July 2017

Piper makes a build-it-yourself computer kit for kids using a Raspberry Pi. It runs a 3D game we made to teach kids about STEM topics with a voxel engine.
- Designed and Developed Music Sequencer Level to include full drum kits, octaves, and recording functionality with dynamic length and bpm.
- Built GUI system using PyQt to control level selection, wi-fi, language and volume settings, and in-game HUD.
- Created sound and video utilities for playing of audio and video.
- Expanded the customization of Minetest through multiple Lua scripts.
- Developed custom support for special Lua API calls using Irrlicht Engine and Minetest.
- Added pathfinding AI to ensure a programmatically generated level was beatable.

Software Developer/Lead Experience Engineer, SKULLY

July 2015 - July 2016

Skully was a hardware company manufacturing motorcycle helmets with a heads-up display that featured a 180 degree rear-view camera and gps.

- Developed Three.js/WebGL VR phone experience where the SKULLY helmet was connected to the user's phone.
- Designed and Implemented in Unity the VR experience for iOS and Android for the Google Cardboard and Gear VR.
- Built and Maintained the SKULLY website using JS/HTML/CSS and Bootstrap 3.
- Launched NGINX server with a Docker image for testing and deployment on AWS.
- Designed a workflow to build minified source files, compress images/videos, build docker images, and deploy to AWS.
- Featured on Shopify for my implementation of their "Add to Cart Button".

Software Engineering Intern, Kinetech Arts / Kineviz Studios

February 2015 - June 2015

Kineviz is a data visualization company that uses interactive demos and art to help display data in a more meaningful way.

- Created a full-stack web application using Node.js, Three.js, Physi.js, and WebGL to visualize tweets and audio data in a 3D world.
- Developed support for Oculus Rift VR, Microsoft Kinect and Wii Balance Board.
- Designed and Built server architecture to allow for tweets to be pulled into the 3D scene in real-time with specific hashtags.
- Presented the project for Autodesk's 3D Webfest 2015 (Video) - Project can be viewed here: vrdatalandscape.com.

☰ SKILLS

Web Development

`HTML` `CSS` `Javascript` `JQuery` `node.js` `Babylon.js` `MongoDB` `Three.js` `nginx` `AWS`

Productivity

`Perforce` `Unreal Game Sync` `Batch` `JIRA` `Git`

Programming Languages

`C++` `Python` `C#` `Lua` `Javascript` `C` `Java`

Gaming

`Unreal Engine 4` `Unity` `Virtual Reality` `Playing!`

🎓 EDUCATION

Computer Science - University of San Francisco

August 2013 - May 2015

Computer Science - Marist College

August 2011 - May 2013

🏆 AWARDS

3D Webfest Recognized Project - Autodesk

May 2015

Built a WebGL application to visualize twitter and audio data in an artistic manner. The project was put on display at Autodesk's 3D Webfest.

Electronic Sports World Cup - ESWC

October 2014

Qualified to represent North America in an international LAN event in Paris, France for the title of world champion.

1st Place, PAX East 2014 - Ubisoft

March 2013

Won the PAX East open qualifier for the IGN Pro League Season 6 championships with a prize pool of $100,000.