

Jarrett Wendt

WendtJarrett@gmail.com | JarrettWendt.GitHub.io

LANGUAGES C/C++, C#, Java, Python, HTML/CSS/JavaScript, Batch, R, XML/JSON/YAML
ENGINES Unreal, Unity
SOFTWARE Visual Studio, Perforce, Git, QuickBuild, Jira, Slack

EDUCATION

UNIVERSITY OF CENTRAL FLORIDA

FLORIDA INTERACTIVE ENTERTAINMENT ACADEMY
Master of Science in Interactive Entertainment

DEC 2020

COLLEGE OF ENGINEERING AND COMPUTER SCIENCE
Bachelor of Science in Computer Science

MAY 2019

PROJECTS

CUSTOM GAME ENGINE

NOV 2019 – AUG 2020

Sole Developer

- Scratch-built data-driven game engine with a focus on modern C++20 design principles.
- Utilized design patterns such as command, chain of responsibility, observer, and singleton.
- Wrote a custom dynamic C++ pre-parser that allows for run-time reflection.
- Invented a fully templated variant container capable of storing any type at runtime.
- Implemented a JSON serialization class for dynamically constructing objects.
- Optimized for thread-safe asynchronous execution with clean coroutine syntax.
- Unit tested every component of the engine with >99% code coverage.
- Documented every method and class using Doxygen.
- Worked with four other programmers to develop a game in this engine in under two weeks.

KEEPERS OF THE TREES

NOV 2019 – AUG 2020

Tools Programmer

- A two-player cooperative 3D puzzle platformer created in Unreal Engine 4.
- Wrote a spline generator for rendering meshes along an indeterminate player-defined path.
- Worked with level designers and artists among our 21-person team to assess what tools would be most useful to their workflow, then designed and implemented them in C++.
- Developed a suite of analytics plugins for capturing playtest data and displaying it visually in-engine. This allowed level designers to glean playtest info at a glance that would otherwise have taken 45 minutes per-session in order to watch the entire recording.
- Set up a server to autonomously fetch project changes from Perforce, attempt a build, send Slack notifications of failed builds, and store packaged executables of successful builds.

ROLL WITH ADVANTAGE

AUG 2018 – MAY 2019

Team Lead

- Worked with four other programmers to develop a D&D online multiplayer roleplaying game implemented in the Unity engine.
- Organized meetings, compiled meeting notes for everyone to review, and assigned tasks.
- Maintained a comprehensive 170-page write-up documenting all design decisions.
- Tracked bugs and features using GitHub's issue tracking system and Kanban board.
- Broke down the exhaustive rules of D&D 5th Edition in an object-oriented fashion.
- In-house peer-to-peer networking system which interfaces with OS sockets directly.
- Leveraged programming patterns such as factories, mementos, and C#'s reflection system.
- Featured a GUI where users could define their own rules and abilities, which would be serialized to JSON so that they could be deserialized later and enforced at runtime.

RESEARCH

UCF SCALABLE AND SECURE SYSTEMS LAB

OCT 2016 – MAY 2018

Undergraduate Researcher

- Collaborated with seven other undergraduate and graduate researchers.
- Developed high-performance thread-safe data structures and algorithms in C++.
- Reviewed research papers by my peers and those published in our field.
- Pursued independent research in concurrency for in-memory-compute architectures.