

HIGHLIGHTS

- Served as the go-to person on multiple projects for implementing the latest engine features and setting up core systems, including physics, animation, AI, audio, and rendering.
- Emulated cutting-edge pipeline tools from AAA developers, speeding up processes by a factor of 50.
- Maintained team documentation standards, promoted best coding practices, and provided engine and version control support to 15 fellow developers across different projects.
- Developed a score-based utility AI system capable of parallel decision-making, and a unique music-gameplay syncing system.

RELEVANT EXPERIENCE

HALbot Studios – House of Lies (UE 5), *Lead Programmer* **March 2024 – Present**

- Increased the project frame rate by 300% through code optimization, animation parallelization, animation budgeting, and identifying GPU resource bottlenecks.
- Utilized UE's latest State Tree for AIs, creating a highly scalable and designer-friendly AI system.
- Achieved runtime physics-based animations by adopting UE's new Physics Control.
- Built a data-driven Resident Evil style map system, animated using custom render queues.

Audio Pipeline Tools (Reaper, Lua, Python), *Developer* **February 2024**

- Recreated pipeline tools by Naughty Dog's Dialogue Team that: 1) improve project organization and error-proofing, 2) enable designers to focus on artistry rather than asset manipulation, and 3) accelerate the manual tuning of audio stems by a factor of 50.

Cancelled Title (UE 5), *Technical Designer* **June 2023 – January 2024**

- Built a data-driven utility AI system featuring score-based parallel decision-making. Developed all aspects of the AI loop, including the sensory, memory, and perception modules, ensuring they are designer-friendly and performant (60fps with up to 100 units).

RockPaperScissors (UE 5, FMOD, Python, JS), *Lead Developer* **February 2021 – December 2022**

- Developed a unique music-gameplay syncing system that aligns gameplay with background music.
- Based on the same system, created tools to automate audio syncing with runtime VFX, animations, or cinematic sequences.
- Mentored a team of four junior developers to become proficient in UE5, Agile methodologies, and production pipelines.

Skills

Languages: C#, C++, Unreal Blueprints, Python, Lua, JavaScript

Software: Unreal, Unity, Agile Methodologies, Wwise, FMOD, Perforce, Git, Maya, DAW