Dan Singer
Gameplay Engineer

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WORK EXPERIENCE

Unbroken Studios **Mar. 2022 – Feb. 2025**
Software Engineer *El Segundo, CA*
Unannounced Project - Unreal Engine 5; C++; Blueprints
- Spearheaded gameplay programming and was the go-to engineer for integrating the Gameplay Ability System into our project.
- Setup game mode, spawning rules, and an interaction system in a networked context.
- Created an inventory system in C++ using data assets, Enhanced Input, the Gameplay Ability System, and MVVM.

Harry Potter: Quidditch Champions (Released Sep. 3, 2024) - Unreal Engine 4; C++; Blueprints
- Implemented a multithreaded Model View ViewModel system that allowed the team to have a clearer separation of concerns between UI Designers and UI Engineers. This was used in many areas in the game such as the post-match sequence, scoreboard, and front-end.
- Used render textures to create complex layouts with 3D characters embedded inside of menus and setup materials to blend between different characters.
- Added systems to detect input from PlayStation and Switch controllers on PC using RawInput or SteamInput, depending on what was available. This was a critical area to get this game verified on Steam Deck.

Suicide Squad: Kill the Justice League (Released Jan. 30, 2024) - Unreal Engine 4; C++; Blueprints
- Created a data-driven system in C++ to manage which game features were available for different game modes.
- Developed new combat abilities and HUD elements for a secondary game mode by using features from the primary game mode in C++ and Blueprints.
- Created and extended UI materials using Signed Distance Fields.

Deviation Games **June 2020 – Mar. 2022**
Software Engineer | May 2021 - Mar. 2022 *Santa Monica, CA*
- Created and maintained a designer-driven, node-based AI Event system with C++ by integrating and extending a third party plugin.
- Created new shaping behaviors for our internally-developed fluid simulation.
- Profiled game performance using Unreal Insights to find bottlenecks in gameplay code and develop solutions to make said code run faster.

Associate Software Engineer | June 2020 - Feb. 2021
- Developed and iterated on a core AI decision-making system.
- Developed and iterated on an AI character using the Environment Query System and the Gameplay Ability System, taking feedback from designers and animators into account.

Oxide Games **May 2019 – Aug. 2019**
Gameplay Engineering Intern *Timonium, MD*
Ara: History Untold (Released Sep. 24, 2024) - Custom C++ Engine
- Programmed new gameplay systems and contributed to existing ones with direction from game designers.

EDUCATION

Rochester Institute of Technology
Sep. 2016 - May 2020
Bachelor of Science; Game Design & Development
- GPA: 3.92
- Minor: Music & Technology

SKILLS

- **Programming:** C/C++; C#; Rust; Python
- **Game Development:** Unreal Engine 4/5; Godot; Unity; Gameplay Ability System; Shaders; Behaviour Trees
- **Web Development:** HTML; CSS; JavaScript; TypeScript; React
- **Miscellaneous:** Git; Perforce; Blender; Jira