

Professional Experience

Gameplay Engineer – Insomniac Games (August 2018 – present)

Marvel's Spider-Man: Miles Morales

- Gameplay programmer for "The Battle For Harlem" mission, including the final boss fight with The Tinkerer and the post-fight specialized gameplay sequence. Worked closely with design and VFX to achieve our narrative, gameplay, visual, and performance targets for the level. [Video]
- Gameplay programmer for The Tinkerer chase sequence at the end of the "Curtain Call" mission.
- With support from VFX and accessibility teams, implemented several of the new accessibility options including button swapping, low-visibility modes, and chase assist options.
- Implemented many other fixes and one-off features, including the visor mods "Eyes in the Back of My Head," "Optic Triangulation," "Residual Venom," and "Eyes on Target."

Marvel's Spider-Man: The City that Never Sleeps

- Gameplay programmer responsible for Silver Sable, supporting the lead combat designer on the enemy Silver Sable fight and the encounter designer for the allied Silver Sable AI a few missions later.
- Post-launch bugfixes and patch support for the main game & the City that Never Sleeps DLC.

Game Engineer - Schell Games (August 2016 – August 2018)

Star Wars: Jedi Challenges – Duel

- Lead combat programmer working closely with the design and art teams to bring unique melee combat systems to a mobile AR platform [Video].
- Prototyped and implemented all core 1-on-1 AR lightsaber combat systems for blocking, attacking, and fight-specific one-off systems (such as blaster deflection and trick attacks) for all 6 duels over the course of 8 months.
- Created mobile-friendly systems to trigger shaders, particle effects, and Wwise audio effects.
- Created a variety of Unity extensions for the team, including tools to allow designers to quickly turn animations into in-game attacks, workflow simplifiers like a favorites window and a rig optimization window, and scripts to automate common tasks like creating materials for use on low-end devices.

Project "Red"

- Prototyped AR theme park rides by creating an "AR in VR" experience using the Unity and HTC Vive.
- Worked closely with the lead designer to try out new ideas for in-ride gameplay mechanics, consistently exceeding team expectations by bringing new systems online on a daily basis.

Project "Monster"

- As the primary engineer, modified an existing codebase to expand an iPad drawing game.
- Created new systems to support data persisting across multiple play sessions, player choice and branching narratives, and art effects not present in the initial release of the game.
- Created designer-facing tools and optimised the audio pipeline to allow the team to increase the amount of content in the game by 3x over the 10 week schedule.

Game Developer – Playful People (February – August 2016)

- Created gameplay systems for an unreleased mobile rhythm game, including transaction-based and reversible scoring, arbitrary on-the-fly time scaling systems, math-driven animations, and prototypes of core user interactions.

Game Developer – Off By One Studios (August 2014 – July 2015)

- Created a large number of prototypes for small Unity games, including many 2D adventure and puzzle games and real-time-strategy game systems.

SDE Intern – Amazon.com (June – September 2013)

- Built and maintained web applications for third-party sellers using Javascript in a framework derived from Bootstrap.js.

Education

Bachelor of Science, Computer Science

Western Washington University, Bellingham, WA – 2014

- Notable projects include a UNIX shell implementation in C and a speed-reading application for Android.