

Heather Martin

Education:

Masters in Entertainment Technology @ Carnegie Mellon University

Bachelor of Science in Computer Science @ University of Mary Washington

Work Experience:

Senior Software Engineer @ Digimancy Entertainment

Aug 2020 to Present, Remote

- Responsible for estimates and implementation of several large gameplay systems for a Unity-based next-gen rpg.
- Designed and implemented several gameplay systems, including a data-driven procedural character generator, a solar-system editor with orbital mechanics, and an inventory and loot system.
- Architected and implemented a flexible rpg stats system used by the design team.
- Created a suite of editor tools to assist with level design, combat mechanics and ship/character construction.
- Wrote several technical documents detailing the inner workings of above systems.

Software Engineer @ Magic Leap

Department: Interaction Lab

Feb 2018 to Apr 2020, Plantation FL

- Developer on [MagicKit](#), a Unity-based suite of mixed-reality developer samples.
- Developer on unannounced Unity-based Mixed Reality project.
- Wrote technical [documentation](#) for the Magic Leap developer portal.

Associate Engineer @ Magic Leap

Department: Interaction Lab

Dec 2015 to Feb 2018, Plantation FL

- Developed fully playable Mixed Reality game prototypes in Unity on an R&D prototyping team.
- Worked closely with tech artists to integrate art assets into Unity projects.
- Mixed Reality/mobile(android) cross platform development.

Software Engineer @ Tech Wizards, Inc

Aug 2014 to Aug 2015, King George, VA

- Designed and developed several Unity-based VR training simulations on the Oculus Rift platform for the U.S. Navy.
- Designed, developed, and maintained features and interfaces used in an online course using HTML5, CSS3 and Javascript.
- Designed and developed scripted 3D content and intelligent NPC's in OpenSimulator.

Projects:

Alpaca-Man

Nov 2019 to Apr 2020

- Developer on a mixed-reality, Unity-based experience that explored various ways to port a classic 2D arcade game (Pac-Man) into mixed reality. (Ported to iOS).
- Implemented a [system that enabled users to interact with world canvas Unity-UI](#) elements using their hands and the controller as input.
- Implemented a placement system that enabled users to build their “level” by snapping/aligning tiles in the user’s environment using the world mesh.
- Implemented game systems needed for a Pac-Man clone (audio manager, actor, visualization, and navigation classes for ghosts & pac-man, game manager, etc.)
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Heroes of Hold'em

Nov 2017 to Apr 2018

- Developer on a networked, Unity-based poker game for desktop and mobile.
- Contributed to the implementation of the multiplayer matchmaking system.
- Created tools so that designers could easily generate different types of playing cards.
- Created tools so that artists could easily generate and test animations in the game.

To be a Shadow

Mar 2015 to Aug 2015

- Developer on a 2D networked, Unity-based stealth game using Photon.
- Implemented system to mask game objects to a player’s ‘cone of vision’.
- Implemented power ups and player buff/debuff systems.
- Implemented UI from design wireframes.

Samsara

Jan 2014 to May 2014

- Developer on a mobile, Unity-based 2D parallax scrolling game.
- Implemented a game checkpoint system to save player’s progress.
- Created a tool to enable artists to add layers to the 2D parallax scrolling environment.
- Created a tool to enable audio designers to flag points in the level where a musical shift in emotion should take place.

Speak with Purpose

Aug 2013 to Dec 2013

- Developer on a Unity-based, interactive comedy show driven by voice input.
- Implemented a .NET application to send speech recognition data using Microsoft’s Speech Recognition API to a Unity game client.
- Implemented a system to handle verbal interactions between the player and an NPC comedian, including: interruptions, positive/negative reinforcement, and answering/refusing to answer questions directed at the player.
- Implemented an XML data driven system to specify an NPC comedian’s script and acceptable player responses.