Matthew Wagar

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WORK EXPERIENCE

Respawn Entertainment   **January 2021 – Present**
Technical Artist II   *Remote Work, Chastworth, CA*
- Built artist tools and pipelines across Maya, Unreal, Houdini, and Blender for Animation, Cinematics, Environment Art, UI, and Lighting teams. Primarily used Python (Maya cmds, PySide/PyQT, Unreal, Blender, and Houdini APIs) with some C++, Unreal Blueprints, and Houdini VEX.
- Created a Character Manager Tool in Maya using MVC architecture to load rigs and modular attachments from a structured data source, while managing the project independently.
- Architected a Cinematics Export Tool to export character animations simultaneously using a multithreaded Python job system, cutting export times from 2 hours to under 10 minutes by running over five concurrent processes.
- Developed procedural Cable and Pipe tools in Houdini for *Star Wars Jedi: Survivor*, enabling environment artists to generate fully customizable, physics-enabled assets with collision support for use throughout game levels.
- Improved GPU performance across levels to help *Star Wars Jedi: Survivor* hit 60FPS performance targets on PS5 and PC.
- Partnered with artists and developers to support, document, and code review tools within a larger shared codebase.

SideFX Software   **January 2020 – June 2020**
Houdini Games Intern   *Santa Monica, CA*
- Researched cross communication workflows between Houdini and Unity using C# and a Python Flask backend server.
- Developed a Unity project that streams Houdini Digital Assets in-game, with editable parameters that update in real-time.
- Learned and applied procedural modeling and texturing techniques in Houdini.

Night Kitchen Interactive   **March 2018 – September 2018**
Unity 3D Developer Intern   *Philadelphia, PA*
- Designed and developed Augmented Reality mobile experiences for museums in Philadelphia using Unity and C#.
- Constructed the User Interface using MVC architecture in Unity's C# API along with Custom Editor Tooling.

Kieran Timberlake - Architecture Firm   **March 2017 – September 2017**
Full Stack Web Developer Intern   *Philadelphia, PA*
- Led full-stack development of a survey dashboard with EmberJS/NodeJS, collaborating on key UI/UX decisions.

National Board of Medical Examiners   **March 2016 – September 2016**
Front-End Web Developer Intern   *Philadelphia, PA*
- Developed a web app that grades physician's "Doctor-Patient Relationship" skills using AngularJS, CSS, and HTML5

EDUCATION

Drexel University   **Graduation June, 2019**
Bachelor of Science in Computer Science   *Philadelphia, PA*
- Concentration in Video Game Development
- Minor in Animation and Visual Effects
- Minor in Virtual Reality and Immersive Media Design

SKILLS

- Programming experience in Python, C++, C#, Javascript and Java.
- Pipeline tool creation experience in Unreal Engine 4, Unity3D, Maya, Houdini, and Blender.
- Performance and optimization experience on models, materials, VFX, and gameplay actors in Unreal Engine 4.