TYLER WANG

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EDUCATION

Rochester Institute of Technology (RIT), Rochester, NY **Expected August 2023**
Bachelor of Science, Game Design & Development **GPA: 3.68**
Dean's List 2019 – Present

SKILLS

Languages: C#, C++, JavaScript, HTML, CSS, Java
Tools: Visual Studio, VS Code, Unity, Git, Photoshop, Maya, Clip Studio Paint, Aseprite

EXPERIENCE

Junior Game Developer **January 2022 – May 2022**
Darkwind Media *Rochester, New York*

- Worked in a team to develop a mobile game in Unity and wrote code for its deployment onto Android devices
- Incorporated Google Play Services into the Unity project using the Google Play Games API and configured the project through the Google Developer Console. Google Play Services were then utilized to implement online functionalities such as cloud saves, achievements, social functions, and in-app purchases into the game.
- Helped handle data management for the game and utilized Unity's Addressables Asset System to work in junction with the project's data saving system. Modified how the game saves data to work with cloud saving with Google Play Services.
- Created customizable game objects for players to interact with and modify. Programmed a system to save these objects' as data chunks both locally and in the cloud for use in other scenes.

3D Animation and Asset Production TA **August 2021 - December 2021**
Rochester Institute of Technology *Rochester, New York*

- Graded all class material and homework assignments for an online class section and regularly provided feedback for students.
- Monitored student progress and grades to keep everyone on track with the course material. Met with students to troubleshoot or clear up any questions with weekly lectures and assisted them in using MAYA and Unity for assignments.

PROJECTS

Untitled | Personal Project **Arcade Shoot 'em Up Game** **May 2022 – Present**

- Programmed a waypoint path system in Unity that creates small movement presets. These sections are then combined to create enemy movement patterns. Coded an enemy manager to handle enemy behaviors and set different movement patterns based on enemy state.
- Created a swappable weapon system that allows players to pickup and change their equipped weapon slots freely.

Tanks! | Personal Project **Top-Down Roguelike Tanks Game** **December 2020 - December 2021**

- Used JavaScript and PixiJS to create a game that supports HTML5 and WebGL that runs natively on browsers with audio and animations.
- Designed a procedural level generator that pulls from a set of randomized level layouts and enemies to then arrange into a map.
- Programmed settings that control which objects and algorithms are used for generating each map. These variables control the style and pattern of the resulting map and allows for the creation of distinct "floors" distinct in geometry, enemies, and difficulty.
- Calculated collision detection between tanks, projectiles and walls using bounding box, line intersection, and vector geometry algorithms.
- Used a combination of different pathfinding algorithms, a variety of enemy projectiles and attack patterns, and distinct sprites to create a diverse selection of various enemies all with unique behaviors and difficulty.
- Programmed animation loops for menus and UI elements to read from sprite sheets and built a particle effect system for projectiles.

Stationary | Academic Project **Mystery Narrative Game** **October 2021 – December 2021**
Programmer (team of 5)

- Managed player input and created an event system for handling the player's actions and swapping out assets as the narrative progresses.

Shifting Talismans | Academic Project **Casual Puzzle Game** **September 2021 - October 2021**
Programmer (team of 5)

- Worked with a team to pitch, build a prototype, schedule playtests, and create a finished product in five weeks. Regularly coordinated with other team members to keep game production on a timeline for each team meeting.
- Programmed the game to handle animations and sprite layers in the game scene. Implemented timer and ticker mechanics for UI elements.

Eat n' Defeat | Academic Project **Endless Shoot 'em Up Game** **January 2020 – May 2020**
Lead Programmer (team of 4)

- Wrote the skeleton of the game with Monogame and built an entity component system to make editing multiple objects more efficient
- Created an object manager to handle individual entities' update loops. Programmed the manager to make objects have easily accessible and modifiable variables to support an external tool for players to freely customize enemies and other elements of the game.
- Coded the main update loop for all object managers and implemented hitbox and movement calculations for ships and projectiles.
- Designed multiple behaviors for enemies that can be modified through the external tool by controlling different enemy parameters.

System Repair | Global Game Jam 2020 **2D Puzzle Platformer Game** **February 2020**
Programmer, Artist (team of 3)

- Programmed the platforming and main gameplay mechanics. Coded a system that changes the level background based on the player's action and implemented multiple sprite sheets that swap depending on player progression through each level.