TYLER WANG

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EDUCATION

Rochester Institute of Technology (RIT), Rochester, NY **May 2019 - August 2023**
Bachelor of Science, Game Design & Development **GPA: 3.69**
Dean's List 2019 – 2023

SKILLS

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

EXPERIENCE

Game Programming Intern **June 2023 – August 2023**
SAIC *El Segundo, California*

- Collaborated with a team of engineers and game developers to create an online multiplayer, turn-based wargame in Unreal Engine that could be used by the U.S. Space Force for simulating possible war-time scenarios.
- Integrated MATLAB with Unreal Engine to create a pipeline for incorporating military assets and simulating geospatially accurate models.
- Helped develop multiplayer functionality to allow separate machines to connect via LAN as clients to a single game server. Programmed the game server to handle Remote Procedure Calls and display separate information to the different game clients.
- Designed the game's UI and programmed it to function with multiplayer and display player actions using data generated from Ansys STK.

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 project using the Google Play Games API and configured the project with the Google Developer Console. Implemented online functionalities such as cloud saves, achievements, social functions, and in-app purchases.
- Handled data management for the game by utilizing Unity's Addressables Asset System to work with the project's data saving system.
- 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 using Google Play Services.

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

Mythos Tactics | Personal Project **Turn Based Tactics Role-Playing Game** **September 2023 – Present**

- Programmed battle states for simulating turn based gameplay and allowing the player to take control of different units based on turn order.
- Created an Event Handler system that allows scripts and game objects to communicate with each other using delegates and events.
- Designed enemy AI and behaviors modeled after a Gambit System. Enemy units go through a linear list of pairs (condition, action) on their turn and choose what to perform based on the sequence and priority of the pairs.

Absorb | Personal Project **Arcade Shoot 'em Up Game** **May 2022 – August 2023**

- Programmed a waypoint path system in Unity that creates small movement presets that are then combined to create full 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.

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.