Astor Meredith-Goujon

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SKILLS

Software:

VScode, Git and Github, Unity 2020-2023, Excel, Google Drive, *Familiar with*: Unreal Engine 4

Programming Languages

C, C++, Python, Java, C#, Typescript, *Familiar With:* React, CSS, SQL

Tools and Libraries

Git, SDL2, Glm, Socket, JUnit, Jest, Open Telemetry, Grafana, Docker,

WORK EXPERIENCE

Software Engineer Co-Op *State Street*

Boston, MA (July 2022 - December 2022)

- Researched the Open Telemetry library to understand how to implement it into code bases.
- Implemented Open Telemetry into various micro services in java to communicate with a Grafana dashboard.
- Gathered data about the longest running functions and communicated that data with my team so they could make the code more efficient.
- Collaborated with senior engineers to help improve the readability of my deliverables.

Software Engineering Intern *Wood Mackenzie*

Boston, MA (July 2021 - December 2021)

- Implemented a new function to pull data into unique Excel workbooks in VBA Code
- Standardized Excel workbooks so data was more readable and was compatible with the new function
- Achieved proficiency in VBA code and Excel function to be able to implement new code into work book codebases
- Incorporated flow network principles to improve data prediction by allowing for adding and subtracting nodes from a network.
- Coordinated with my fellow intern to delegate tasks to improve efficiency.

EDUCATION

Northeastern University Boston, MA

BS in Computer Science and Game Development

Dean's List Fall 2023, Spring 2024

TRACK AND FIELD

Northeastern University

Division 1 Track Athlete

Eastern States Champion in the DMR (2020)

3rd Place at the BU Opener in the 800m (2021)

800m Qualifier for IC4A (2023)

4×800m CAA Qualifier (2020)

PROJECTS

Gameplay Engineer   *Underworld's Pursuit*

Boston, MA (Febuary 2024 - April 2024)

- Aided in the implemented custom physics to allow the player to move, shoot, jump and dash smoothly
  - Implemented the shooting mechanic by firing the bullet from the player character towards the mouse position.
  - Simulated gravity by modifying the player's y velocity every frame unless dashing.
  - Implemented dash by making the player character move towards a point a set distance in the direction of their last horizontal input.
- Wrote and implemented the soundtrack to interact with the game manager
  - Plays custom sound when the player dies
  - Plays different parts of the soundtrack file based on which scene the player is in
- Coded the game manager that handles level transitions and the current game state
  - Made a title screen where player could choose between starting the game and looking at the credits
  - Transitions between the tutorial level and the main level once the player reaches a certain point in the tutorial.
  - Swaps to a game over screen when the player dies then resets the level

Gameplay Engineer   *What Remains of Me*

Boston, MA (January 2024 - April 2024)

- Implemented collision physics for the player's grappling hook.
  - Implemented collision logic so that the hook would bounce of of the walls and ceiling.
  - Checked for wire collisions with a raycast to prevent wall phasing.
  - Added a listener to the hook renderer that allows other classes to modify its game state.
- Extended the battery class to create a new battery type that could gain or lose energy independent of the player.
  - Coded a function that adds or loses energy over time based on the battery state.
  - Created an effects class that can be attached to batteries that allows custom effects to be played alongside a batteries function.
- Added particle effects to the player's grappling hook.
  - Coupled a particle system with the player's drain/charge abilities that displays differently based on the player's action.
  - Used player data to move the particles towards or away from the player based on which abilities they're using.
  - Accessed data from the parent class to align the color of the energy to the color of the particles.

Gameplay Designer   *Dream Beast*

Boston, MA (January 2024 - April 2024)

- Coded data persistence when transitioning between scenes.
  - Wrote data to a file after every battle to record the health of the player's beasts.
  - Loaded in data at the beginning of every battle to get the current team and health values of the player's beasts.
- Designed and implemented beasts and their attacks.
  - Came up with base stats for every beasts that aligned with their class and identity as well as attacks to accompany those systems.
  - Implemented attacks that could affect health, modify stats or provide status effects such as dots or slows.
  - Found particle animations for all of the moves and plugged them into the battle system so each move could call a unique animation during game play.

LEAGUE OF LEGENDS E-SPORTS CLUB

Player

Scouted opposing teams to come up with counter strategies

Participated in a 2 month long season with 4 fellow players

Hosted gameplay reviews to help identify areas for improvement

Qualified for playoffs in our league