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NDA-Protected unreleased PC Game

FEBRUARY 2024 – JULY 2024

Lead Programmer/Windows-MacOS

I contributed to the development of a game featuring rogue-lite mechanics, focusing on various critical aspects. My primary responsibility was to establish the architectural foundation, ensuring a solid and scalable structure to support the game's dynamic nature.

To enhance performance, I conducted extensive optimizations related to physics and batching. These efforts were vital in maintaining fluid gameplay and minimizing load times, even during peak action sequences.

also developed a scalable attributes system that facilitated character upgrades. This system allowed for flexible modifications, enhancing the game's depth and providing players with meaningful progression.

In collaboration with game designers, I created tools specifically for balancing the game. These tools were instrumental in fine-tuning gameplay mechanics, ensuring a fair and challenging experience for players.

Additionally, I handled several other tasks, including UI development, shader programming, and managing various types of input. I designed user-friendly UI elements, implemented visually striking shaders, and ensured seamless compatibility across different input devices.

Overall, my work on this rogue-lite game encompassed foundational architecture, performance improvements, system development, collaborative tool creation, and versatile technical implementation, all aimed at delivering an engaging and polished player experience.

Key features:

- Game architecture
- Localization system
- Optimization
- UI Development
- RPG-like attributes system
- Shaders programming

NDA-Protected unreleased PC Game

MAY 2024 – JULY 2024

Lead Programmer/Windows-MacOS

This project is a game that masterfully blends elements of RPG tactics and city management. My primary responsibility was to lay down the architectural foundation, ensuring a robust and scalable framework to support the game's complex mechanics and features.

For the RPG elements, I developed a comprehensive system for handling character attributes and upgrades. This system allows players to enhance their characters' abilities, adding depth and personalization to the gameplay experience. Additionally, I implemented an upgrade tree system, enabling players to unlock and enhance various abilities and features as they progress through the game.

A significant part of the game involved procedural hex terrain generation, which added variety and replayability by creating unique landscapes for each playthrough. This procedural generation was tied to a versatile grid system that supports both square and hexagonal grids, providing a flexible foundation for various types of strategic movement and positioning.

All the UI was meticulously constructed by me, based on a Figma project provided by a UX/UI designer. This ensured that the user interface was not only functional but also visually appealing and user-friendly.

Lastly, to make the game accessible to a global audience, I integrated Unity's localization system, allowing the game to support multiple languages seamlessly.

Overall, my work on this game involved a mix of architectural planning, system development, procedural generation, and UI implementation, all contributing to a rich and engaging player experience.

Key features:

- Game architecture
- Localization system
- Optimization
- UI Development
- RPG-like attributes system

Treasure Bay

FEBRUARY 2024 – MAY 2024

Lead programmer – Music composer/WebGL (Legends of learning)

Web

In this game, I was responsible for setting up the main game architecture, establishing a solid foundation that allowed other team members to focus on implementation details. Once the architecture was in place, I delegated these tasks to a dedicated team of programmers.

In addition to my architectural work, I took on the role of composing the game's musical themes and sound effects (SFX). I not only created these audio elements but also implemented them, ensuring they seamlessly integrated with the gameplay and enhanced the overall player experience.

Towards the end of the development process, I was called back to assist with final polishing and debugging. My efforts during this phase were crucial in refining the game, addressing any remaining issues, and ensuring a smooth, polished release.

Key features:

- Game architecture
- Technical supervision
- Music and SFX composition and implementation
- Polishing and debugging
- 3rd party API implementation (Legends of learning SDK)

Adaptation Odyssey

FEBRUARY 2024 – MARCH 2024

Lead Programmer/WebGL (Legends of learning)

Web

In this game, I served as the lead programmer, responsible for setting up the game architecture. A significant part of my role involved a heavy focus on AI systems, specifically Finite State Machines (FSM) and flocking algorithms. I performed extensive optimizations on the physics for these flocking algorithms, ensuring efficient and smooth behavior for large groups of entities.

Collaborating closely with animators, I worked to prebake animations that were initially calculated in real-time, improving performance by reducing the computational load during gameplay. Another key aspect of the optimization process involved generating texture atlases and configuring their compression settings correctly, which helped streamline rendering and improve overall efficiency.

Additionally, my work extended to shader programming, where I developed custom shaders to enhance the visual experience. I also handled UI development, implementing designs from UI/UX designers' documents to create user-friendly and visually appealing interfaces. Furthermore, I implemented various third-party APIs to extend the game's functionality and integration capabilities.

Key features:

- Profiling and optimization
    - Physics
    - Flocking algorithms
    - Prebake animations
- Game architecture
- AI Systems
- Shader programing
- UI development
- 3rd party API implementation (Legends of learning SDK)

Ebenezer & the invisible world (Porting)

JULY 2023 – FEBRUARY 2024

Lead Programmer/PC/Consoles porting to Android/iOS

Google Play, App Store

We began this project by reviewing all game textures to establish a proper organization for generating atlases. Working closely with artists, I oversaw tasks such as rescaling, packing, and compressing textures to optimize performance and memory usage.

All UI development was carried out under the supervision of UI/UX artists, pursuing an enhancing user experience. I implemented a responsive UI that adapted seamlessly across different screen sizes and resolutions. I also led the migration from a joystick control scheme to an on-screen touch control scheme, improving accessibility and usability for mobile players.

To ensure compatibility with mobile platforms, I learned and integrated third-party APIs like Rewired and I2Localization. This involved familiarizing myself with these APIs and making necessary adjustments to optimize performance and functionality for mobile formats.

Given mobile RAM constraints, I designed and implemented a system for dynamic loading, optimizing resource management and ensuring smooth gameplay performance on mobile devices.

Finally, I was responsible for the crucial task of signing and uploading game builds to app stores, ensuring that each release was prepared and delivered successfully to players worldwide.

Key features:

- Profiling and optimization
- Responsive UI development
- Joystick control scheme to on-screen touch control scheme migration.
- Asset management for dynamic loading
- 3rd party API implementation
- Upload game builds to app stores (google play console and the app store connect)

Power beef

NOVEMEBER 2023 – FEBRUARY 2023

Programmer/Android/iOS

App Store, Google Play

In this other project, I joined at the final stages of development. One of my responsibilities consisted in building an achievements system to track and reward player progress. Additionally, I created a simple save data system to ensure players' progress was reliably stored and retrieved.

I also contributed to UI development, implementing various elements to enhance the user experience. Part of my role involved conducting a thorough review of the existing codebase to make it more robust and error-free, ensuring a smoother and more stable game performance.

Finally, I was responsible for publishing the game to mobile stores, specifically Google Play Console and the App Store Connect, ensuring that the release process was handled efficiently, and the game was made available to players.

Key features:

- Enhancing code stability and performance
- UI development
- Achievements system
- Upload game builds to app stores (Google play console and App store connect)

Bit Heroes Runner

NOVEMEBER 2023 – FEBRUARY 2023

Programmer/Web/Android/iOS

Web, Google Play, App Store

In this other project, I was contracted as part of a team during the final stages to rewrite and improve parts of the existing codebase, enhancing both its stability and performance. A significant portion of my work involved developing front-end solutions with server communication for real-time data management, using Playfab.

We undertook substantial refactoring, much of which was focused on the UI, to ensure a more polished and user-friendly experience. Additionally, I handled integration with the Ironsource API to support monetization and other services.

Throughout this project, we frequently utilized Unity Cloud Build, and I had to learn how to configure various aspects of that pipeline, ensuring smooth and efficient builds and deployments.

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Key features:

- Rewritten and improved existing codebase enhancing code stability and performance
- Develop front-end solutions with server communication for real-time data management (Playfab)
- UI development
- Ironsource implementation
- Unity Cloud build configuration

NDA-Protected AR unreleased Game

MAY 2022 – NOVEMBER 2022

Programmer/iOS

This game revolved around augmented reality (AR) and geolocation, making extensive use of SDKs such as Mapbox and Niantic Lightship to create an immersive and interactive experience. My role involved integrating these SDKs to handle geospatial data, enabling dynamic interactions based on the player's real-world location. By leveraging Geographic Information Systems (GIS), I was able to incorporate detailed geographic data, allowing the game to respond accurately to the player's environment and provide context-aware features that enhanced the AR experience.

In addition to the core AR and geolocation features, I conducted tests related to player communication using the Agora SDK. This involved implementing real-time communication capabilities, allowing players to interact with each other seamlessly within the game environment.

The UI was managed with Doozy UI Manager, which provided a robust framework for creating responsive and visually appealing interfaces. I implemented various UI components to ensure an intuitive user experience, following designs and guidelines provided by UI/UX designers.

A significant aspect of the project involved handling user and game data through a server that used Firebase. This required a substantial amount of front-end scripting to manage data storage and retrieval efficiently. I developed systems for saving player progress, retrieving game state information, and ensuring data consistency across sessions.

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Key features:

- API Implementation
    - Mapbox SDK
    - Niantic Lightship SDK
    - Agora SDK
    - Doozy UI Manager
- SIG Systems
- Develop front-end solutions with server communication for real-time data management (Firebase)
- Rewritten and improved existing codebase enhancing code stability and performance

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Movi

SEPTEMEBR 2022 – MARCH 2022

Programmer/Android/iOS

Google Play, App Store

In this game, I served as the sole front-end programmer. I was responsible for laying out the main game architecture, with a primary focus on augmented reality (AR) functionality and Finite State Machine (FSM) systems that revolved around a character being created over a tracked image.

Another critical aspect of this project involved retrieving narrative and art data from a server, ensuring that the game's content was dynamically updated and seamlessly integrated into the AR experience.

Finally, I was responsible of configure and building the game both in Android and iOS and publishing the game to mobile stores (through Google Play Console and App Store Connect), ensuring that the release process was handled efficiently, and the game was made available to players.

Key features:

- API Game architecture
- AR features implementation (ARKit, ARCore)
- Server data retrieving (obtain game assets from dedicated server)
- Upload game builds to app stores (Google play console and App store connect)

Other Legends of learning games:

Tinypets: Evolution

SEPTEMEBR 2022 – MARCH 2022
Web

Atomic pop it

SEPTEMEBR 2022 – MARCH 2022

Xenosteriod park

SEPTEMEBR 2022 – MARCH 2022
Web

Food chain story

SEPTEMEBR 2022 – MARCH 2022
Web

Microlives

SEPTEMEBR 2022 – MARCH 2022

Skipping boxes

SEPTEMEBR 2022 – MARCH 2022
Web

Programmer/WebGL

These games were developed for publishing on the Legends of Learning platform. My usual tasks included implementing the Legends of Learning SDK and rewriting and improving the existing codebase to enhance its stability and performance. I also engaged in some shader programming and developed basic AI functionalities to enrich the gameplay experience.

Key features:

- Rewritten and improved existing codebase enhancing code stability and performance.
- AI systems
- Shader programming
- API implementation (Legends of learning SDK)
- UI development