Alberto Maluje

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Summary

Alberto has extensive experience in developing user-centric mobile applications, primarily for Android using Kotlin, Java, and C#. Committed to honing his skills, he adheres to clean architecture and industry best practices, exemplifying meticulousness and responsibility. Alberto's versatility in software engineering positions him as a valuable asset capable of delivering high-quality solutions across diverse industries. Alberto's versatility extends beyond mobile apps; he is also a passionate game developer with a keen focus on C#, Unity, and game design. During his leisure time, he has cultivated a wealth of experience in Unity, excelling in the development of editor tools and games for both PC and mobile platforms. His expertise spans various genres, including tower defense, FPS, RPGs, and platform games, showcasing proficiency in asset creation, tools development, level design, and programming.

Skills:

Unity, *C#*, *Scriptable Objects*, *Unity Tools dev*, *Game Development*, *Game Design*, *Game Programming*, *2D Graphics*, *Mirror*, *LINQ*, *Koin*, *Kotlin*, *Android*, *Java*

Links

My portfolio - https://berserkpixel.studio/portfolio/

GitHub - https://github.com/betomaluje

Work Experience

Project Name: Aurora: Genesis

Berserk Pixel Game Studio, Q1 2024 - present

Lead Unity Developer / System arquitect / Tools engineer

Aurora: Genesis, is a roguelite action game that will immerse you in the fractured realms of Lumina. with its procedurally generated continent. Each playthrough presents new challenges and surprises, ensuring that you'll never run out of exciting experiences. It's the perfect game to sink countless hours into, with fresh and captivating gameplay every time.

Responsibilities:

• Develop tools to make it easier to create more content

• Develop procedurally generated levels

• Develop different systems such as loots, enemy AI, state machines and more

• Game design

Keywords:

State Machine, Game design, Procedural Generation, Tooling for content creation

Project Name: Avesta: Procedural Tilemap Generator

Berserk Pixel Game Studio, Q1 2022 - Q4 2023

Lead Unity Developer / System arquitect

Alberto, serving as both Software Architect and Developer, played a crucial role in a pioneering project by designing and implementing innovative, scalable solutions. He created powerful editor tools, optimized workflow, and enhanced user experience with features like dynamic live previews. Alberto leveraged advanced technologies and programming patterns, ensuring project flexibility and extensibility. His meticulous documentation and collaborative approach facilitated efficient troubleshooting and ongoing development, leading to the project's success and exceeding client expectations.

Responsibilities:

• Developed tools

• Architecture all code to make it more modular

• Collaborated with cross-functional teams

Keywords:

Unity Asset Store, Scriptable Objects, Job System, Unity Editor scripts

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Project Name: Prata: Dialog System

Berserk Pixel Game Studio, Q1 2022 - Q1 2022

System architect, Lead Developer

Alberto designed and developed the visual scripting tool for Unity. Besides writing the code he did the UI and UX for this tool. Some of the technologies used are: Graph View, Scriptable Objects, LINQ and Unity Editor scripting. The result was an easy to use screen where one can create characters and dialog nodes. Easily connect them to create whole conversation between characters

Responsibilities:

• Developed visual editor tool using Graph View and Scriptable Objects

• Developed saving and loading systems

Keywords:

Unity Asset Store, Unity Editor scripts, Scriptable Objects, Graph View, LINQ

Project Name: Bison

Berserk Pixel Game Studio, Q2 2023 - Q2 2023

System architect, Lead Developer

Bison is a versatile social media tool simplifying content creation and sharing for platforms like Twitter and Mastodon. By automatically sourcing images and integrating ChatGPT for personalized writing assistance, Bison transforms social media management, streamlining posting and scheduling processes while enhancing user experience.

Responsibilities:

• Developed the Windows application

• Integrated Twitter API

• Integrated Mastodon API

• Integrated ChatGPT API

Keywords:

Chat GPT, Unity Editor scripts, Scriptable Objects, LINQ

Project Name: Faroz: The Begining

Berserk Pixel Game Studio, Q1 2021 - Q1 2021

Lead Unity Developer

Areas of focus have included gameplay design, level design, gameplay implementation and building the UI for the game. Alberto was the lead developer and team lead throughout the project. It was a challenge since the development of this game had a tight schedule, so reusing clean code was a must. The result of Alberto's work was a 2D top-down shooter and farming game that allows the players to explore the procedurally generated level, making each play different from the previous one as well as following the main character's story throughout the game

Responsibilities:

• Developed web applications

• Collaborated with cross-functional teams

Keywords:

Game design, LINQ, Git

Project Name: Asset Manager

Berserk Pixel Game Studio, Q3 2022 - Q3 2022

Lead Unity Developer / System arquitect

Dive into a prototype project delving into web request APIs, seamlessly integrating external content into Unity. This initiative simplifies asset management, aggregating resources from platforms like Humble Bundle and Itch.io into a centralized space. Leveraging web requests APIs, this prototype presents an innovative solution, enhancing user experience and fostering a more productive creative workflow within Unity.

Responsibilities:

• Developed Windows application

• Integrated Humble Bundle API

• Integrated Itch.io API

Keywords:

Web request APIs, Windows system API

Project Name: TV4-CMore-Telia

TV4 Media AB, Q2 2019 - Q4 2021

Team Lead, Android Developer

During his time at the client, Alberto contributed significantly to four different applications: the core Player, TV4 Play, Telia and C More clients. He added new features, including downloading and offline capabilities, and enhanced the code architecture and structure. Alberto played a key role in deciding the future direction of the code base and collaborated with the team to improve the applications' Google Play Store ratings. Additionally, his efforts led to a more structured approach to working and a unified goal in maintaining code standards across the team

Responsibilities:

• Developed mobile and tablet applications

• Created one code base for all different applications

• Restructured the code base to support all this changes

Keywords:

Team management, Kotlin

Passion Projects

3D RPG game

Alberto created a single player 3D RPG exploration game in Unity. Using technologies such as Scriptable Objects, Cinemachine (including Timeline for cutscenes), Shader Graph, and Particle Systems. The game has exploration and puzzle solving elements. Alberto was in charge of the programming and level designing and polishing (making custom LUT to use on Post Processing).

Unity Asset to create 3D Active Ragdolls

Alberto created a Unity asset that enables users to transform any 3D humanoid character into a Physics Active Ragdoll character. This means that the model will be controlled purely with physics. For this, Alberto created custom Editor Windows to make it easy to the user to map and add all physics related components into an existing 3D Model. Under the hood there is a lot of physics calculations to make the character walk, jump and be able to hold and throw things in a convenient way.

3D Multiplayer FPS

After becoming more comfortable with 3D game development, Alberto decided to take it to the next level by creating a 3D multiplayer first person shooter. Using a networking solution called SocketWeaver for Unity Alberto created a game were 2 teams will compete each other. Team 1: Cops need to eliminate all thiefs. Team 2: Thiefs that need to pack the money into the bag and escape in the vehicle. Alberto was in charge of the programming, the level designing and networking code. SocketWeaver helped a lot by taking care of common issues when hosting a game such as issues with Wi-Fi, mobile data, and so on.

3D Local multiplayer FPS

Looking for another challenge, Alberto decided to out of his 2D comfort zone and start creating a 3D first person shooter using Unity and C#. To make this challenge interesting, he insisted that it had to be multiplayer. Each player can grab different items within the world, throw them at each other, and of course, use the weapons against each other. The winner is the last person standing.

2D top down game

After creating several 2D platformer games in Unity and C#, Alberto decided to step out of this genre and started to create a top-down game. It consists on randomly generated levels where the players must escape from the maze and defeat some enemies. One of the challenges was to use the new Input System Manager so it worked "out of the box" with multiple type of controllers (PS4, XBox, keyboard, etc)

Melee Battle Game

To start remembering game development, Alberto decided to start a fighting roguelike game in Unity and C#. It consist on randomly generated levels where the user has to escape by grabbing weapons and defeating enemies. One of the challenges was to make it also a "couch co-op" game making the game playable from local multiplayers.

2D Platformer

Trying to improve his abilities, Alberto tried to mimic Kirby's game mechanics in Unity and C#. Kirby is a platformer game where the player can move around the level defeating enemies. One peculiar and challenging thing is that the main character can "absorb" enemies and acquire the enemies' unique abilities

OpenVu Watch Face Android Developer

OpenVu started as an idea of having a cool watch face on an Android Wear smartwatch. Who doesn't want a Pokemon theme on their watch? Then it escalated as a game on your wrist also and finally released different watch faces along with it that the user can personalize at will. Alberto developed both smartphone and android wear apps

Kyky Android Developer

Alberto uses a lot of different Android libraries to not reinvent the wheel. He knows he is not the only one and wanted to contribute to this open source community by developing Kyky. It is a library that simplifies the communication between smartphones and Android Wear devices through Bluetooth. It supports everything the conventional Wear library has and it is up to date with the new support libraries

Mi Band Android Developer

Mi Band is the first Xiaomi's fitness tracking device. It tracks your steps and sleep as also notifies (through vibration and lightening a LED) any incoming notification in the phone such as emails, WhatsApp or any other social platform, calendar events, among many others. Alberto developed a library to communicate with this band so anyone could personalized the band. For example, it could change the band's LED color depending on the type of notification (it couldn't be done with the standard Xiaomi's app) or vibrate at will.

Spyrac Android & Hardware Development

Spyrac is a platform that monitors a car and notifies the user for several events, letting him to act accordingly. I was devised by Alberto and developed by him and four more team members for the university's annual technological science fair. It consisted on an electronic device and a mobile and web application. The device is connected inside the car and sends data periodically to the server, letting the user know if the lights are on, if the car was stolen or involved on an accident and even if the engine has any problem. It let the user act accordingly to this, turning the lights off, track the position of the car in realtime and even the description of the engines malfunction. Alberto was the Lead Android Engineer of the team and also participated on some development of the electronic device

Education

Bachelor Computer Science Engineer

Universidad Técnica Federico Santa María, 2007-2012