

Jean-Paul Balazs Thenot

Software Engineer

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Portfolio: zetaku.itch.io

Education

2023 **Computer Engineering, Pontifical Catholic University of Chile**
2021 **Software Engineering (Bachelor of Science in Engineering), Pontifical Catholic University of Chile**
2016 **High school diploma, Lycée Antoine-de-Saint-Exupéry, Chile**
Scientific Baccalauréat with Mathematics specialty

Competences

Programming Languages: **C, Python, Ruby, C++**
C#, JavaScript, Bash, \LaTeX
SQL, MQL (Mongo)

Technologies: **Unreal Engine, Blueprints,**
Unity, Game Maker, Perforce, Git
Reaper, Ruby on Rails, Php, Django
PostgreSQL, MySQL
Amazon Web Services, ReactJs, NodeJS

Life Skills: **Teamwork, Self-Learning, Healthy Lifestyle**
Programming, Music Production

Languages

🇪🇸 Spanish: Native
🇬🇧 English: Advanced (TOEIC and English Education)
🇫🇷 French: Advanced (French School)
🇯🇵 Japanese: Intermediate (JLPT N3)

Experience

October 2023 -
November 2023

Junior Software Engineer, Iguanabee, Santiago, Chile

- Simple Hitbox system in C++ with interfaces.
- Usage of Gameplay tags for different gameplay actions, to manage different states.
- SFX Programming in C++ for footstep sounds on different materials.
- Implementation in C++ of a World Music Subsystem for each stage.
- Implementation and usage of the Quartz subsystem for in game music layering.

Unreal Engine C++ Unreal Blueprint

March 2023 -
June 2023

Junior Software Engineer, Iguanabee, Santiago, Chile

- Game (3D Action Adventure Platformer): Skull Island: Rise Of Kong
- VFX and SFX implementation, communicating with different art departments: Programmed animation notifies via c++ code for footstep VFX and SFX according to material, Implemented line traces to detect the material in a way that it didn't affect game performance.
- Implemented a modularized c++ component for boss music: Following basic programming principles, I added a component to the main character so that when confronting a specific boss, it's music played flawlessly. Usage of Delegates to communicate between components the current health of the boss, the current phase of the boss and when the cinematics began or ended.
- UI Programming with Widget Blueprints: For another project I had to program an ability menu, thinking about navigation and proper variable management when activating certain abilities, translating the UI variables into character variables. Use of polymorphism to enable different button behaviour depending on the context, for example if the button is for a health upgrade context or an armor upgrade context the options that appeared were different.
- Achievement Implementation and testing: Debugged the game with Rider, looking for stack calls and seeing why the expected behaviour was not working and fixing it (Achievement save data).

Unreal Engine C++ Unreal Blueprint Unreal Widgets UI

July 2022 -
December 2022

Junior Software Engineer, Santiago, Chile

- > Lightpath: Click to Play on Itch.io
- > Created a Unity Touhou-like (Shoot-em up with view from above and with Visual novel style dialogue) Prototype game with a student group of 4 people.
- > Implemented the dialogue functionality: Broke down the dialogue problem in smaller tasks, how to make the characters bright when they talked, how to manage their emotional states with sprite changes, how to manage the case when a character could talk multiple times and change emotions in the middle of the dialogue.
- > Implemented the Character select and Map select UI following basic design principles.

Unity C# UI

July 2022 -
August 2022

Junior Software Engineer, Iguanabee, Santiago, Chile

- > Game (3D Action Adventure Platformer): Skull Island: Rise Of Kong
- > Implementation of AI Behaviour in Unreal: With Behaviour trees, and blackboards implemented basic patrol and perception behaviours on dinosaurs.
- > Implementation of animations in game: Calling certain functions on the AI so that the behaviour was consistent with animation.

Unreal Engine C++ Unreal Blueprint Unreal Widgets

January 2022 -
February 2022

Game Programming Intern, Iguanabee, Santiago, Chile

- > Game (Baseball Sport): Little League World Series Baseball 2022: Click to Visit on Steam
- > Implementation of gameplay features in c++: Programmed the dash power-up enabling the animation, speed-up and finishing the powerup state.
- > Use of Enumerators and Structures for the implementation of animations in-game: For each animation, we had to have an organized style coding, so that the call was clear and the used assets were known in code.
- > Usage of Widget Blueprints for programming of Menu features: Navigation and being able to see changes on the UI after certain options were selected.
- > Implementation of in-game achievements using the Unreal Achievements Interface: Programmed the behaviours intended in game, read the current game code and looked for the best locations to check for the specific achievement. Implemented save data structures to keep count on which stages the player had played, so that achievements unlocked when the full conditions were met.

Unreal Engine C++ Unreal Blueprint Unreal Widgets

January 2020 -
March 2020

Independent Summer project, Santiago, Chile

- > Beatfighter: Click to Download on itch.io
- > Created a very basic prototype fighting game to learn Unreal Engine with c++: Had to think about Paper2D Animations, how hitboxes were made and affected the other character, programmed a basic input system where the last 10 moves were recorded and the game scanned for specific combinations, such as down, down-right, right for hadouken in both character sides. Implemented a basic UI with health bars and reset the game when one of them reached 0.
- > Made on summer seasons, Chile.

Unreal Engine C++

Extracurricular Activities

January 2018 -
Present

Japanese, Santiago, Chile

- > Obtained JLPT N3 on July 2022
- > Followed a course of japanese kanji vocabulary on the Memrise app that has over 2000 kanji and 6000 vocabulary words.
- > Click to Memrise Course
- > Studied for four months at a Japanese School, Ceija institute, Santiago, Chile.

Japanese Self-Learning JLPT N3

March 2023 -
Present

Music Production, Santiago, Chile

- > Using Reaper to learn Music Production and game VGM Composition
- > Click to Latest Project: Pokemon HGSS Arrangement
- > Click for Spotify Artist Page

Self-Learning Music

March 2022 -
July 2022

Volleyball, Santiago, Chile

March 2023 -
Present

- > Training in Volleyball to maintain healthy lifestyle and teamwork.

Teamwork Healthy lifestyle

February 2022
January 2018

Karate, Santiago, Chile

- > Training in karate to improve lifestyle, learn about self-improvement and self-defence.

Healthy lifestyle