

Arnaud BEGUE



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Portfolio :
www.arnaudbeguedev.fr

Video Game Programmer

Unreal Engine 4 / Unity / C# / C++

Graduated from Epitech (promotion 2009)

Profile

Unreal Engine 4 (Blueprints/C++) and Unity3D (C#) programmer.

Main skills revolving around architecture, gameplay development, editor tools and good basics on optimization (profiling) and rendering (3D & shaders).

Also has a good global vision of every aspects of the production (graphics, audio, physics, network, etc.).

Autonomous, curious, invested and rigorous.

Main Skills

Unreal Engine 4 (since 4.7) in Blueprints and C++

- +6 years old experience
- Video game development: creation of a complete game, distributed on PC/PS4/XboxOne, and few little ones (Game Jams, and B2B services)

Unity3D with C#

- +9 years old experience
- Video game development, serious games, advert games (mobile, AR, VR), tools

Programming

Languages

C#

C++

Versioning Software

Git

Svn

Engines used

- **Unreal Engine 4**
(C++ & Blueprints)
- **Unity3D**
- XNA/Monogame, PSM, Havok Vision Engine (Project Anarchy), SFML, Qt, Game Maker

Global knowledge

- Game Design
- Graphic Rendering (Shaders)
- Mathematics 3D
- Lighting
- Modeling/UV Mapping/Texturing/Skinning /Animation

Professional Experience

[Apperture](#) - October 2019 - Today

Services developer - 2D/3D realtime applications PC/Mobile/AR/VR + tools + projects management.

[Persistant Studios](#) - July 2015 - October 2019 / ~4 yo

Unreal Engine 4/Unity 3D developer - Video game & B2B services sections. Release of 1 PC/console game.

[DayDreamer Studio](#) - September 2013 - May 2015 / ~2 yo

Developer of video games (Unity3D), architectural (building) softwares (Unity3D/Unreal Engine 4), and an image processing software (Qt + OpenCV) - Release of 3 mobile games.

[Persistant Studios](#) - October 2011 - August 2012 / ~1 yo

Unity3D developer - B2B services (advert games, serious games)

Languages

French (native tongue) - English (intermediate)

Professional Projects

Boiling Bolt (2015-2018) [↗](#)

2D/3D Shoot'em Up Game	Unreal Engine 4	PC / PS4 / Xbox One
Worked as solo developer on every aspect of the game, from architecture to all game logic, Box2D integration as 2D physics engine, custom editor tools, publishing, profiling/optimization, localization, menus/HUD/UI integration, engine updates, prototyping, polishing, debug and platform ports.		
Core mechanics were made in C++, while project specificities were done in Blueprints.		

Rives d'Arcin (2017) [↗](#)

Roller coaster in VR for market hall event	Unreal Engine 4	PC VR
Worked as solo developer on gameplay: full done in blueprints, railcar travelling, scoring system, bonus/trap gifts, weapon system, tools, tutorial, level design, asset integration (audio & graphics) and configuration file.		

DysvrQuest / Parolia (2021-2023) [↗](#)

Speech training in VR	Unity	Oculus Quest 2
Worked as solo developer on every aspect of the application: architecture, formation & exercise logic, network with back office, animated crowd, database management (Sqlite), editor tools, documentation & unit testing, and way more!		

Vortex (2022) [↗](#)

FPS in VR	Unity	PC VR (Backpack)
Worked as consulting for profiling and optimization audit, thanks to Unity and RenderDoc. Allowed to define GPU bottlenecks, reduce polycount & draw calls, overlapping lights and improve shadow cascade setup.		

Skill transfer: GPU Profiling & Optimization with RenderDoc (2023) [↗](#)

Introduction of rendering pipelines (forward & deferred, using URP and HDRP), Unity profiling/frame debugger tools and RenderDoc to profile and optimize projects when having a bottleneck on GPU.		
Presentation was chained with a step-by-step tutorial directly in Unity to get coworkers practice in a "real" way, having them to search issues in levels and find optimization solutions.		

Personal Projects

Engagement (2023) ↗	PokeLove (2021) ↗
HDRP project for Meta Quest 2 (PCVR) with hand tracking, to request my girlfriend to become my fiancée. Worked on level modeling & lighting, experience flow and hand tracking integration.	Hack of the first Pokemon, requested by a friend to make its marriage proposal. Worked on modifying and adding new dialogues, making world scripted animation, modifying sprites and trainers, thanks to a set of specialized tools, and a hexadecimal editor.