

### PROGRAMMING LANGUAGES

C | C++ | C# | Assembly (x86 / ARM) | Objective-C | Java

### CONCEPTS

Parallel Programming | Intrinsic | Memory Caching | Design Patterns | Algorithms

### SOFTWARES

Visual Studio | Renderdoc | PIX | Perforce | Git | TortoiseSVN | Blender | Photoshop

### SCRIPTING LANGUAGES

Python | JavaScript | Lua | Bash

### RENDERING API & SHADING LANGUAGES

DirectX 10/11/12 | GNM | Vulkan | HLSL | GLSL | PSSL | CG (ShaderLab)

### GAME ENGINE

Unreal Engine 4 | Unity

### PLATFORM

PC | PlayStation 4 | Xbox One | PlayStation Vita | Android | iOS

#### 2017- **Avalanche Studios – Graphics Programmer – Unannounced project**

*I'm working as Graphics Programmer on Avalanche in-house multiplatform engine.*

- Porting existing 3D engine into DirectX 12
- Working on GPU particles (collision on depth buffer, terrain, modifiers, ...)
- Working on Volumetric Fog
- Working on Terrain
- Working on Vegetation
- Doing postprocesses
- Debugging and optimizing 3D & multithreaded engine

#### 2015-2017 **Ubisoft Paris – Graphics Programmer – Ghost Recon Wildlands**

*I worked as Graphics Programmer alongside with environment, technical & FX artists. I worked on Ubisoft in-house engine featuring PC, Xbox One, PlayStation 4 platforms.*

*I mainly implemented & maintained terrain features/fully-GPU tools such as:*

- Painting tools for topology, material, vegetation, moisture, ... (filter/shape/mask brushes)
- Import from Houdini-baked data (vegetation, roads, river maps ...)
- Terrain nightly & real-time bake process (Compression, background rendering (vista), props heightmap, ...)
- Terrain rendering pipeline (editor view, virtual texture, terrain rendering model ...)
- Export terrain data from GPU for Gameplay purpose
- Perforce pipeline integration

*I also worked on features such as:*

- "Top space ambient occlusion" based on props heightmap computed within lighting pass
- Screen-space GPU particles effects
- Bink video during real-time gameplay
- Z-PrePass

*I optimized part of the game, debugged several renderpasses and memory overwrite issues, multithreading issues.*

#### 2014 **Pastagames – Engine Programmer – Pix the Cat (PlayStation Vita/PlayStation 4)**

*I worked as Engine Programmer intern on Linguini, Pastagames in-house multi-platform engine.*

*I had to port part of Sound Engine to PS Vita. I also worked on PNG texture (RGBA and premultiplied textures) import.*

*I implemented Vibe feature on PS4, multi-threading module on PC/PS4/PS Vita.*

*I had to deal with memory debugging issues such as stack overflow, buffer overflow.*

**Skills :** C++, Visual Studio, PS Vita, PS4, Sound, Parallel & Engine Programming

2013- **Custom engine programming**

*I work on a 3D game engine on my spare time, it features multithreaded rendering and it implements D3D12/Vulkan back-end. It also implements deferred rendering, shadow maps and PBR BDRF.*

2013-2015 **Student projects – Graphics & Gameplay Programmer**

*I practiced game engine, graphics and gameplay programming.*

*Here are some features I implemented or some work I did:*

- *Wrote a shadow casting code for a Global Game Jam game*
- *Optimized CPU code on Unity*
- *Create custom controller (boat helm and torch) & programmed for dualscreen game*
- *Worked on time travel engine (Fast-forward, time rewind)*
- *Worked on procedural paper texture generation, procedural animation for paper fold, paper edge postprocess (Paper themed project)*
- *Did camera, controls and character programming*

## LANGUAGES

French	Native
English	Fluent

## EDUCATION

2013	Graduate School of Games and Interactive Media (ENJMIN, France)
2015	Master JMIN, spécialité Programmation (eq. Master's Degree in Games and Interactive Media, Computer Science branch)
2011	Université Paris Sud (France)
2012	Licence informatique (eq. BSc in Computer Science)
2009	IUT Paris Descartes (France)
2011	Diplôme universitaire de technologie (DUT) Informatique (eq. Associate's Degree in Computer Science)
2008	Lycée Notre-Dame de Providence (France)
2009	Baccalauréat général Scientifique (High-school diploma in Science)

## INTERESTS

eSport (Overwatch, League of Legends, Hearthstone, ...)  
 Sports (Swimming, Running, Hiking, Bouldering ...)  
 Programming (working on game engine)  
 Japanese culture