

## Profile

Hard-working Software Engineer that aims to achieve a professional position within the games industry, a passion he has been chasing since he was a child.

Good problem solving skills and great communication abilities enable him to work directly in a team with a high level of dedication. He is a strongly motivated person seeking for new challenges that will give him the opportunity to continue learning.

## Technical Skills

Programming Languages	Mathematics	Software Engineering	APIs , Libraries & SDKs
<ul style="list-style-type: none"><li>• C</li><li>• C++</li><li>• Java</li><li>• C#</li><li>• SQL</li></ul>	<ul style="list-style-type: none"><li>• Algebra</li><li>• Calculus</li><li>• Trigonometry</li><li>• Geometry</li></ul>	<ul style="list-style-type: none"><li>• Obj-Oriented Progr.</li><li>• Data Structures</li><li>• Design Patterns</li><li>• Op. Systems</li><li>• Networks</li><li>• Multithreading</li></ul>	<ul style="list-style-type: none"><li>• OpenGL</li><li>• GLSL</li><li>• SFML</li><li>• Box2D</li><li>• Android SDK</li></ul>
Web Development	IDEs	Misc.	Source Control
<ul style="list-style-type: none"><li>• HTML</li><li>• CSS</li><li>• JavaEE</li></ul>	<ul style="list-style-type: none"><li>• Visual Studio</li><li>• Eclipse</li></ul>	<ul style="list-style-type: none"><li>• Unity Game Engine</li></ul>	<ul style="list-style-type: none"><li>• Perforce</li><li>• GitHub</li></ul>

## Education

### 2013-2014 MSc Computer Games and Entertainment (Distinction) Goldsmiths University of London

Modules covered:

- Programming for Games and Interactive Graphics (C++, OpenGL, GLSL, Basic Networking & Multithreading, etc.)
  - **Procedural City Engine** developed in C++ and OpenGL ES 2.0 . Worked as a part of a team with the task of dealing with the intersections of multiple roads applying *mitre joint* technique and the creation of both road and pavement meshes. Also in charge of modifying an existing Collada builder in order to load and procedurally place several 3D models on the generated city.
- Maths and Graphics for Computer Games (Vectors, Matrices, Quaternions, Fractals, Interpolation, Curves, Surfaces, etc.)
  - **Procedural Fractal Landscape generator** developed in C++ and OpenGL ES 2.0. Custom designed shaders apply textures based on terrain height, create water reflection and movement, and render the skybox.
  - **L-System developed in C++ and OpenGL ES 2.0** that generates realistic 2D and 3D vegetation procedurally.

- AI for Games (Steering Behaviours, Pathfinding, Behaviour Trees, Learning Algorithms, Procedural Generation of Content)
  - **Procedural Dungeon Generator** tool developed in C++ and OpenGL that generates randomly shaped and realistic 2D map dungeons using several techniques such as *Graphs*, *Minimum Spanning Trees*, *Separation Behaviour* and *Delaunay Triangulation*.
- Physics and Animation For Games (Box2D, Bullet, Physics Engine Structure, Collisions, Physics Fluid Dynamics, Motion Capture) - **3D Fluid Dynamics (Navier-Stokes)**

## 2007-2013    **Computer Engineering BSc** (First Class Honours) University of Oviedo (Spain)

Modules covered (among others):

- Automata Theory, Data Structures, Networks, Operating Systems, Databases, Software Engineering, Software Design Patterns, Web Development, A.I, Language Processors and Compilers, Knowledge Engineering.
  - Final dissertation: **educational game developed with Unity** that facilitates the understanding of OOP and intelligent systems. By the use of *Reflection* the game is able to read in runtime the rules and behaviour of the characters previously coded by the users.  
**"E-learning" Award Winner - Partners EPI-GIJON.**

## Employment

- 2013 (6 mths)    Telefónica Global Technology S.A (Madrid, Spain)**  
*IT Contract Management - Hub Europe*  
Worked as a part of a team managing, transferring and developing IT contracts for the different Telefonica's European Branches.
- 2014 - 2015    West Pier Studio (Brighton, UK)**  
*Trainee Software Engineer*  
Working on the development of new features for DeckTools Inspire, studio's main project. Mainly focused on **procedural generation of content, tools and gameplay programming**.

## Communication, Team Work & Organisation

Great communication skills enable him to transmit concepts easily within a team and understand what other members are trying to express. Always open to discuss different approaches, put them into practice and cooperate to achieve high-quality solutions.

Familiar with Agile development methodologies having worked on several Scrum-managed projects. Responsible for meeting deadlines for features to hit important milestone dates.

He has got good organisation abilities being able to manage high workloads effectively within strict deadlines and tight time constraints. He always tries to schedule work beforehand and prioritise the tasks he has been assigned.

## Interests

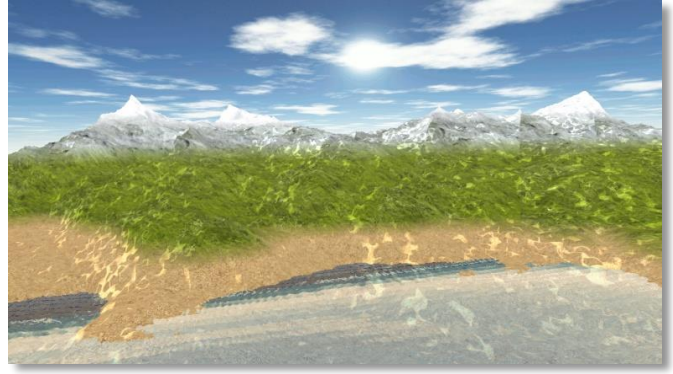
Games has been his passion since he got his console at the age of nine, not only about the fun and playable part but also impressed by the graphic techniques. He's interested in a wide range of types of games such as *Sandbox*, *Shooters* or *RTS*.

He is also passionate about music, playing the electric guitar since he was 15 and attending as many gigs as he can. Travelling, watching films and practising sport are some of the activities he loves to do in his free time.

## Projects



[DeckTools Inspire \(West Pier Studio\)](#)



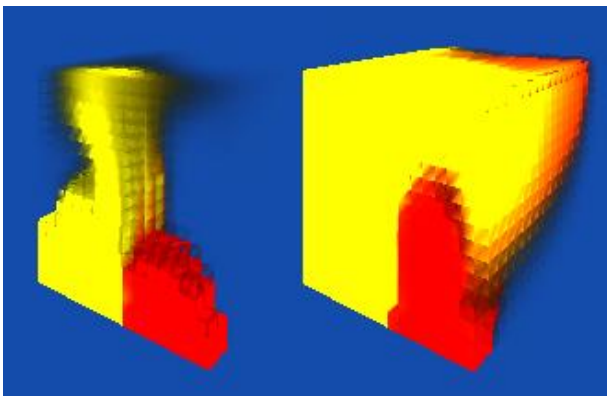
**Procedural Fractal Landscape Generator**



**Procedural City Engine**



**L-System Renderer**



**3D Fluid Dynamics (Navier-Stokes)**



**JeroQuest 3D. Educational Unity 3D Game.**

***"E-learning" Award Winner - Partners EPI-GIJON***

## References

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