

Profile

Hard-working Software Engineer with strong C++ and mathematical skills with professional working experience within the games industry.

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 |
|---|--|---|--|
| <ul style="list-style-type: none">• C• C++• C#• Java• SQL | <ul style="list-style-type: none">• Linear Algebra• 3D Geometry• Trigonometry• Calculus | <ul style="list-style-type: none">• OOP• Data Structures• Design Patterns• Op. Systems• Networks• Multithreading | <ul style="list-style-type: none">• OpenGL• GLSL• SFML• Box2D |
| Web Development | IDEs | Game Engines & Misc. | Source Control |
| <ul style="list-style-type: none">• HTML• CSS• JavaEE | <ul style="list-style-type: none">• Visual Studio• Eclipse | <ul style="list-style-type: none">• Unity 3D• Redmine | <ul style="list-style-type: none">• Perforce• GitHub |

Employment

Jun 2014 - Present West Pier Studio (Brighton, UK) *Trainee Software Engineer*

Working on the development of new features for **DeckTools Inspire**, studio's main project developed in Unity.

- Focused on the design and implementation of programming solutions for **procedural generation of content, gameplay, ui and tools**.
- Communicate and work efficiently within a team of programmers along with artists and designers to build a high-quality appealing game-like experience.
- Utilise Industry Tools such as Perforce and Redmine as well as Agile Scrum development methodologies.
- Responsible for meeting deadlines for features to hit important milestone dates.



Jan-Jun 2013 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.

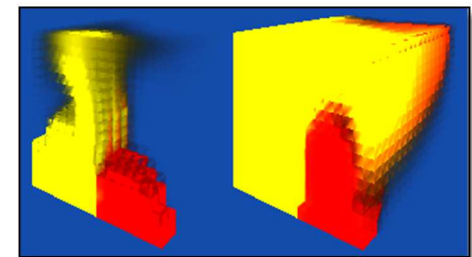
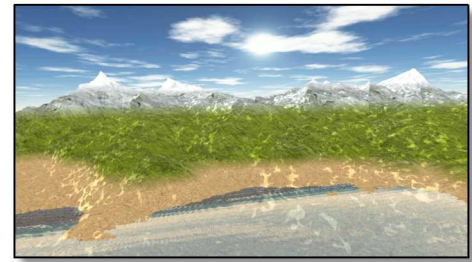
Projects

- **Procedural City Engine** developed in C++ and OpenGL ES 2.0. Worked as a part of a team generating the streets (both road and



pavement meshes), their layout and intersections by applying a *mitre joint* technique. Also in charge of modifying an existing Collada builder to load and procedurally place several 3D models on the generated city.

- **Procedural Fractal Landscape generator** developed in C++ and OpenGL ES 2.0. Uses a stochastic algorithm along with several transformation functions such as smoothing, thermal erosion and perturbation. Custom designed shaders apply textures based on terrain height, create water reflection, waves simulation, and render the skybox.
- **L-System renderer** developed in C++ and OpenGL ES 2.0 that generates realistic 2D and 3D vegetation procedurally. Able to load different L-Systems from configuration files, step through its successive iterations and modify some of their parameters.
- **Procedural Dungeon Generator** tool developed in C++ and OpenGL ES 2.0 that generates randomly shaped and realistic 2D map dungeons using several techniques such as *Graphs*, *Minimum Spanning Trees*, *Separation Behaviours* and *Delaunay Triangulation*.
- **3D Fluid Dynamics demo** that shows an extension in 3D of Jos Stam's fluid dynamic algorithm based on Navier-Stokes equations. It shows a simulation of the explosion of an atomic bomb and demonstrates the expansion of different sources with different colours. Developed in C++ and OpenGL ES 2.0.
- **JeroQuest 3D**. Educational game developed with **Unity 3D** that facilitates the understanding of OOP and intelligent systems. By the use of *Reflection* the game is able to read at runtime the rules and behaviour of the characters previously coded by the users. "E-learning" Award Winner - Partners EPI-GIJON.



Education

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

2007 – 2013 Computer Engineering Degree (First)
University of Oviedo (Spain)

Interests

Games have 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 games genres 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 spare time.

References

Dominic Jackson
Technical Director, West Pier Studio
☎ : (+44) (0) 1273 206482
✉ : dom@westpierstudio.com

Andy Thomason
Lecturer, MSc Computer Games & Entertainment
Goldsmiths University of London
✉ : a.thomason@gold.ac.uk