



# Panos Karabelas

Engine/Graphics Programmer

I believe in high goals, self-teaching and hard work. I'm looking to develop bleeding edge game technology, collaborate with top talent, expand my knowledge and have fun.

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🌐 www.panoskarabelas.com

🐦 twitter.com/panoskarabelas1

👤 github.com/PanosK92/SpartanEngine

## WORK EXPERIENCE

### Generalist Programmer

Sony Interactive Entertainment Europe

2018 – Present

Manchester, UK

Working in a small but veteran made team on an upcoming title for PSVR

Achievements/Tasks

- Created an environmental analysis AI system, coupled with fuzzy logic, able to deliver behaviour with human-like cover/navigation tactics.
- Implemented an engine subsystem which allows designers to easily create complex audiovisual player feedback (hud, sfx, vo).
- Integrated ImGui into our engine with full 3D/VR support. [↗](#)

### Junior Programmer

Sony Interactive Entertainment Europe

2017 – 2018

Manchester, UK

Achievements/Tasks

- Created game analytics system with capabilities like exporting and plotting.
- Implemented cheap and accurate target prediction for an AI unit.
- Created smoke tests, automated reporting and improved upon our continuous integration system.
- Reduced PS4 deployment time by up to 60%.

### Gameplay Programmer

Kickback Studios [↗](#)

2015 – 2015

Larisa, Greece

A one time collaboration with friends

Achievements/Tasks

- Worked on a game that was a Ludum Dare entry. [↗](#)
- Implemented physics-based player movement, grappling hook and jetpack mechanics.

### Gameplay Programmer

Genesis Game Studios

2013 – 2014

Larisa, Greece

A small studio formed by top Microsoft Student Partners all around Greece

Achievements/Tasks

- Worked on 4 mobile games.
- Doubled as an AI programmer.
- Imagine Cup game pitch mentoring by Ubisoft's The Division marketing team.

### Microsoft Student Partner

Microsoft Greece

2012 – 2016

Larisa, Greece

Achievements/Tasks

- Acted as a university campus leader. [↗](#)
- Mentored by industry professionals. [↗](#)
- Delivered presentations and organized workshops. [↗](#)
- Was part of a global community, learned to play well with others. [↗](#)

## AUTHOR OF SPARTAN ENGINE

One of the most complete, open source, one-man game engines (2013 – Present) [↗](#)

- Graphics techniques like SSR, SSS, SSAO, Bloom, Motion Blur, Bloom, TAA, Volumetric Lighting and many others.
- Also includes things like DirectX and Vulkan, physics, audio, scripting, a thread pool, cpu & gpu profiling, a real-time shader editor, an event system, font rendering and many more.
- I have been doing this, almost every day, for the past 6 years so feel free to click on the link for an extensive feature list and a video.

## IMAGINE CUP WORLD FINALIST

Games Category (2014) [↗](#)

A competition organized by Microsoft to promote student entrepreneurship. A global event with hundreds of entries (startup-like teams)

## EDUCATION

### Computer Science & Telecommunications

University of Thessaly

2010 – 2016

### Certificate of Proficiency in English

University of Michigan

2000 – 2010

## SKILLS

HLSL/GLSL   Trigonometry   Linear Algebra

Vulkan   DirectX   C/C++   C#   Unreal

Unity   Qt   ImGui   RenderDoc

Razor CPU/GPU   Bullet Physics

## INTERESTS

Food   Gym   Movies   Friday Beers

## REFERENCES

Peter John Marshall - Lead Programmer @ Sony Manchester

[peter.john.marshall@sony.com](mailto:peter.john.marshall@sony.com)