Tiago Costa

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BACKGROUND

Tiago Costa is a real-time graphics/engine programmer born in Portugal in 1993. He received his BSc degree in Computer Science from Universidade do Porto in 2014. He's been interested in games programming, more specifically in real-time graphics, since about 2008.

He's up-to-date on, state of the art, real time rendering techniques including physically based shading, shadows and post-processing effects. He's always looking for ways to improve performance by optimizing code and data layouts.

EXPERIENCE

Junior Graphics Programmer – Rockstar North
August 2015 – Present

PROJECTS

Aqua Game Engine (2013 – Present)
http://www.tiagovcosta.com/aqua (open source)

Designed and implemented the engine architecture, with a focus on excellent performance using cache friendly data layouts.

Implemented many state of the art rendering techniques, including tiled deferred lighting, physically based shading, cascaded shadow maps, volumetric lighting, screen space reflections, depth of field, motion blur and tone mapping.

MAIN SKILLS

- Solid 3D graphics theory and math knowledge
- Strong C/C++ programming skills
- In-depth knowledge of Direct3D11 and HLSL
- Good knowledge of CPU and GPU architectures
- Low-level game/graphics engine programming experience
- Strong code and data optimization skills
- Strong debugging skills
- Multi-threaded programming experience
- Basic SIMD (SSE) programming experience
- Compute Shader (GPGPU) programming experience
- Languages: C/C++, HLSL, x86 Assembly, Lua, Javascript, Python, Haskell, Java, C#, HTML
- Strong written and verbal communication skills

EDUCATION

Universidade do Porto, Portugal
Bachelor of Computer Science (2011-2014)