Axel Paris - Researcher (Full CV)

27 years old
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Current Position

2019 – 2023 PhD Thesis in Computer Sciences at LIRIS, Université Lyon 1
Three dimensional Terrain modeling with Implicit surfaces
Advisors: Eric Galin, Eric Guérin
Keywords: terrain modelling, erosion simulation, implicit surfaces, signed distance fields

Work and Education

2021 – 3mo PhD Intern, Adobe Research
Advisors: Pierre Gueth, Nathan Carr, Jérémie Dumas

2018 – 2019 Research Engineer, LIRIS, PAPAYA Project with Ubisoft

2016 – 2018 Master in Computer Sciences, Université Lyon 1
Specialized in Computer Graphics

2017 – 2018 Full stack developer, Apave Sud'Europe

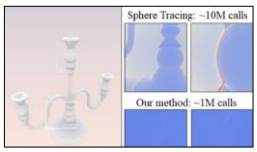
2016 – 3mo Research Intern, LIRIS - Atmosphere modeling by sketching
Advisor: Adrien Peytavie

2015 – 3mo Research Intern, Robert Gordon University - Accessibility in video games
Advisor: Michael Heron

Selected Publications

Synthesizing Geologically Coherent Cave Networks
Computer Graphics Forum (Pacific Graphics 2021)
***Axel Paris**, E.Guérin, A.Peytavie, P.Collon, E.Galin*

Modeling Rocky Scenery using Implicit Blocks
The Visual Computer (CGI 2020), Best paper award
***Axel Paris**, A.Peytavie, E.Guérin, J-M.Dischler, E.Galin*



Segment Tracing using Local Lipschitz Bounds
Computer Graphics Forum (Eurographics 2020)
*E.Galin, E.Guérin, **Axel Paris,** A.Peytavie*

Terrain Amplification with Implicit 3D Features
ACM Transaction on Graphics (Siggraph Asia 2019)
***Axel Paris**, E.Galin, A.Peytavie, E.Guérin, J.Gain*

Desertscapes Simulation
Computer Graphics Forum (Pacific Graphics 2019)
***Axel Paris**, A.Peytavie, E.Guérin, O.Argudo, E.Galin*

For the full list, refer to this page.

Teaching

2022-2023 Computer graphics course (Master)
Data structure for graphics (mesh, implicit surfaces), raymarching, shading, texturing, procedural mesh generation

2019 - 2023 C/C++ course (Bachelor and Master)
Data structures (binary tree, skiplist, linked list…), advanced C++ (templates, metaprogramming, C++17 STL)

Independent Projects

2017 - 2022 **Hitman Party - Video game**
Hitman party is a local multiplayer party-game. I worked on features such as an optimized pathfinding system, procedural character design, player controller and physics, and was also involved in all game design aspects. The game is planned to be released on Windows.

2015 - 2018 **Realistically scaled Terrain engine - Research project**
The goal of this project was to create a terrain engine capable of managing large terrains (thousands of kilometers). I was implicated on aspects such as procedural material placement and modeling of non-planar terrain features.
[Blog Posts]

2015 - 2016 **Equilibrium - Video game**
Equilibrium is an arcade, physics-based mobile game. I was the main programmer on the project and was implicated in all aspect of the graphics/sound design. The game was released on Android in 2015.
[Blog Post]
Play Store Page

Programming Skills

Languages	C++ C# Python
Libraries	OpenGL OpenCL OpenMP Qt6
Engine	Unity3D Unreal Engine
Tools	Git SVN CVS Latex

Languages

French	Mother tongue
English	Proficient