

DEVELOPER - TD - PHD

PIERRE-EDOUARD LANDES

EMPLOYMENT HISTORY

TD DEVELOPER (CURRENT)

help conceiving and implementing the studio's **USD-centric pipeline for feature films** developing and supporting the asset pipeline (esp. sets), as well as for FX and animation

SUPERPROD

8/2020>...

Python QML C++
USD Maya Solaris Shotgrid

DEVELOPER (1 YEAR)

audited the production pipeline to assess its move to Pixar USD

TECHNICOLOR - MIKROS IMAGE

2019>2020

C++ Python USD

R&D ENGINEER (5 YEARS)

conceived the studio's **physically-based renderer**, its **real-time viewport**, and dynamic scene management provided production code and plugins for major 3D CG software (for rigging, real-time shading)

SUPAMONKS

2014>2019

C++ Python CPython
Maya V-Ray Nuke

R&D RENDERING ENGINEER (1 YEAR)

took part in the port and development of new features for the **Minko 3D game engine** worked on solutions for **interactive global illumination** and **physically-based animation** integration

AERYS

2013>2014

C++11 Qt WebGL

RESEARCH ASSOCIATE (1 YEAR)

participated in the conception of a novel **discrete texture statistical model**

LABORATORY OF INFORMATICS PARIS DESCARTES

2012>2013

C++ Qt OpenGL3 GLSL

RESEARCH ASSOCIATE (6 MONTHS)

worked on **epitome-based image compression** in collaboration with Eden Games for the GENAC engine

INRIA RHONE-ALPES GRENOBLE (RENDERING TEAM)

2011

C++ Qt OpenGL3 GLSL

RESEARCH ASSISTANT (PHD)

worked on **example-based texture synthesis** for raster and vector discrete textures worked on color appearance for **perception-relevant greyscale conversion** of images and video worked on an **interactive illustration assistant** for feature line renditions of 3D models

INRIA RHONE-ALPES GRENOBLE (RENDERING TEAM)

2006>2010

C++ Qt

OpenGL2 GLSL

Lapack CGAL GSL

RENDERING ENGINEER (MASTERS)

INRIA RHONE-ALPES GRENOBLE (RENDERING TEAM)

2006

SOFTWARE ENGINEER (INTERNSHIP)

BEEBUZZINESS

2005

SKILLS & KNOWLEDGE

PROGRAMMING

Languages **Python, C++, Lua, C#, Latex**
CG libraries **USD, Maya, Houdini, OpenGL**, OpenSceneGraph, Embree, Alembic, OpenSubDiv
Other libs. **QML, Qt, Boost, OpenMP, Bullet, CGAL, Lapack**
Toolchain **vscode, GitLab Flow, CMake, rez, docker, gdb, valgrind**

ABILITIES

Bilingual French-English
Scientific scouting
Good social skills & appreciation for teamwork
Experience in production and active user support
Solid theoretical background (math)

THEORY

Pipeline knowledge for 3D animation
3D content representation via USD
Physically-based offline rendering
Realistic and expressive real-time rendering
Real-time shading, and physically-accurate lighting techniques
Eulerian, and Lagrangian fluid simulation
Differential geometry
Image processing (filtering theory, colorimetry)
Computer vision (object detection, classification)
Statistical modeling of spatial patterns (point processes)

EDUCATION

PHD IN COMPUTER SCIENCE & APPLIED MATHEMATICS (CG)

Information Extraction for Editing and By-Example Synthesis in Expressive Rendering
François Sillion & Cyril Soler (advisors)
Thomas Hurtut, Amit Shesh, Kaleigh Smith & Joëlle Thollot (collaborators)

INRIA RHONE-ALPES & GRENOBLE UNIVERSITIES

2/2011

MASTER'S DEGREE IN COMPUTER GRAPHICS with honors

Image Analogies for Stroke-based Rendering By Example (in French)
Cyril Soler (advisor)

INRIA RHONE-ALPES & GRENOBLE UNIVERSITIES

2006

ENGINEERING DEGREE with honors

ENSIMAG (GRENOBLE IT)

2006

PUBLICATIONS

- A SHAPE-AWARE MODEL FOR DISCRETE TEXTURE SYNTHESIS** EuroGraphics Symposium on Rendering'13
Pierre-Edouard Landes, Bruno Galerne, Thomas Hurtut
- INFORMATION EXTRACTION FOR EDITING AND BY-EXAMPLE SYNTHESIS IN EXPRESSIVE RENDERING** PhD manuscript
Pierre-Edouard Landes
- APPEARANCE-GUIDED SYNTHESIS OF ELEMENT ARRANGEMENTS BY EXAMPLE** NPAR'09 (international conference on expressive rendering)
Thomas Hurtut, Pierre-Edouard Landes, Joëlle Thollot, Yann Gousseau, Rémy Drouilhet, Jean-François Coeurjolly
- APPARENT GREYSCALE: A SIMPLE AND FAST CONVERSION TO PERCEPTUALLY ACCURATE IMAGES AND VIDEO** EuroGraphics'08
Kaleigh Smith, Pierre-Edouard Landes, Joëlle Thollot, Karol Myszkowski (2nd best paper award)
- CONTENT-AWARE TEXTURE SYNTHESIS** Technical Report
Pierre-Edouard Landes, Cyril Soler
- ANALYSE ET SYNTHÈSE DE TEXTURES À BASE DE MOTIFS RÉPÉTITIFS** Revue Electronique Francophone d'Informatique Graphique 2008
Pierre-Edouard Landes, Cyril Soler (in French)

Drawing & CG


Animation & video games
Hiking

HOBBIES

California, Louisiana
Crete, Canada
Spain, Italy, Germany

TRAVELS

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Occitanie, France (remote) 

CONTACT