

# Olivier HOËL

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France

## Computer Graphics Engineer

**Career objectives:** aiming at working in a video game studio as a graphic or tools engineer. Strong skills in real time rendering engine development and optimization, GPU programming, rendering algorithms and image processing.

### Work Experiences

#### Expert Engineer – Research Institute INRIA Grenoble – ARTIS Team

Collaborating with video game studio **Eden Games** (Lyon, France)

Jan. 2008 – Sept. 2011

Grenoble (France)

**GENAC project:** research and development on **real-time global illumination** for video games: **screen space ambient occlusion and indirect lighting**.

**Talk at SIGGRAPH 2010 conference:** « *A Fast Deferred Shading Algorithm for Approximate Indirect Illumination* » and will also be published soon in a scientific journal.

**GARDEN project:** research and development on **real-time foliage rendering** and **procedural generation of terrain** using constraints.

*Technologies : C++, OpenGL/GLSL, DirectX/HLSL, Qt4, SVN*

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#### Consulting Engineer – Amesys Conseil / Corys TESS

**SIDEM / FLEXSIM Project** – train simulator: design of embedded GUI, implementation of various software components for train simulators, collaborating with physics engineer, and following customers' specifications.

Oct. 2006 – Jan. 2008

Grenoble (France)

**SPRAT Project** – military transport simulator: **many improvements on 3D engine**, special effects implementation for **terrain, building and water rendering**; **add new features to level editor**, collaborating with artists.

*Technologies : C++, OpenGL/GLSL, MFC, Swing®, Perforce*

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#### Research Engineer – Research Institute ATR – KSL Team

**e-Nightingale project:** software design and implementation to handle communication and monitoring between various kind of sensors.

Dec. 2005 – June 2006

Kyôto (Japan)

*Technologies : Java, C, Network communication, Multithread, SVN*

## Software Engineer – Numicom

April 2005 – Sept. 2005

**Majook Project:** design of a communication middleware for an innovating game device, collaborating with electronic engineer. Implementation of **several mini-games for demonstrative purpose**, and first **real-time 3D battle game prototype**.

Moirans (France)

*Technologies : C++, Java, Quest3D, Flash (AS2)*

## Education

**Engineering course at Polytech'Grenoble**, computer science, network and multimedia applications

2002 - 2005

Grenoble (France)

Option « Multimedia »

- Image synthesis, 3D modeling, image processing
- Software design and Object Oriented Programming
- GUI design and Multimedia software
- Project management

**B.S in Mathematics and Computer science** – Joseph Fourier University

2000 - 2002

Grenoble (France)

**French "Baccalauréat" in Sciences** – Option mathematic

Juin 2000

## Skills & Knowledge

**Languages** French : mother tongue

English : fluent (TOEIC 815)

Japanese : notions

**Programming** C++, C, OpenGL/GLSL, DirectX/HLSL, Qt4, STL, Java, XML

**Development tools** Visual Studio, Eclipse, gDebugger, glslDevil, PIX, Perforce, SVN

**Graphic software** 3DStudioMax, Adobe Photoshop, Flash

## Passions & Personal interests

**Games** Passionate of **video games**, multiplayer games, board games, card games

**Community activities** Active member of **Wake-On-Lan** community: LAN Party organization and *Retro-gaming* events **Retro Game Alpes** gathering hundreds of passionate people and onlookers.

**Sports** Mountain sports (ski, rock climbing, canyoning), Floorball (or Unihockey), martial arts

**Computer Graphics** Animation movies (2D / 3D), augmented reality

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References available on demand