

Alexandre HAFFNER

14 rue de l'est
90000 Belfort
France

French
Date of birth: July 30th 1986 (age 22)
Single

(+33) 6 99 91 21 44
haffner.alex@gmail.com

Six months' Engineer Internship

Computer Science: Image, Interaction and Virtual Reality

Education

Since 2007	Image, Interaction and Virtual Reality specialisation at the UTBM (Université de Technologie de Belfort-Montbéliard, France)
Since 2006	Computer Science Department at the UTBM.
2004 – 2006	Engineering foundation courses at the UTBM.
07 / 2004	Scientific baccalaureate (equivalent to a HSLC) with honours.

Professional Experience

Strange-Agency 2007 – 2008	Six months' technical internship being involved into innovative web crawling and data mining application development, using new technologies such as C# 3.0 and LINQ. I also solved matching algorithm problems, efficiency issues and took part in the software design process, in a small but highly motivated team. (Middlesbrough, United-Kingdom)
Faure & Jeffredo 07 / 2006	Summer job working in a medical laboratory. (Belfort, France)
Faurecia 02 / 2005	One month industrial experience as an operator. (Audincourt, France)

Realisations

- **High Dynamic Range (HDR) 3D demo** written in **C++** using **OpenGL**, **SDL**, and **GLSL shaders**. This application implements multiple techniques available in a HDR context, such as **auto-exposure** and exposure control, **blooming**, streaks, tone-mapping, as well as some basic features such as model loading, environment mapping (cube mapping), reflections, refractions and camera management.

A video is available on YouTube here: <http://fr.youtube.com/watch?v=gKmaL3Im8wM>.

- **Team of marines**, a 2D virtual life simulation written in **Java**. The user control is based on what can be found in RTS games and the application demonstrates how to control an organised **team in formation** in a **crowded environment**. This includes formation management, **path finding**, **obstacle avoidance**, environment editing... Everything runs in a simulation platform designed for this software.

- **Bus simulation in Java.** It **simulates the comportment of buses and passengers** on a personalised network. The software is made of two parts, the first one is used to setup the networks, the buses' speeds, the passengers' goals, and the other one controls the simulation.

- **Biomorphs Rendering.** This application can be used to render biomorphs (sort of **fractals**) in both **2D and 3D environments**. Its main purpose is **artistic** as it was designed for the Art & Culture day at the UTBM. The project developed in **C++** using **QT** and **OpenGL** has been carried out in GNU GPL and is available on my website. (<http://haffner.alex.free.fr/qbiom/>)

- **Bus simulation in Flash** and Action Script 2.0. This simulation has another goal, which is to **reproduce**, thanks to data given by a real bus company, **what happened on the bus network** during a certain period. It is represented in 2D on the map of Belfort, France. We developed as well an xml format to store the data and a methodology to add or modify buses lines on the network.

- **Involved in the DoL Server Project.** It is an open source shard for the online game Dark Age of Camelot. I realised a module in **C#** to automatically **compress and email** various logs on server start. (<http://www.dolserver.net/>)

Skills

Operating systems	Good knowledge of Unix-based and Microsoft Windows operating systems.
Languages	Extensive knowledge of object oriented programming, especially in C++ and C#. Good knowledge of C and Java. Basic skills in Action Script 2.0 and 3.0, Shell scripting, LISP, Prolog and ARM7 assembler.
3D & VR	Good knowledge of OpenGL, and self taught (beginner) in DirectX. Studying Virtools and 3DSMax during my last semester. Good knowledge of GLSL shaders.
Web	XHTML/CSS, PHP4, MySQL, basics in Flash, JSP and Ajax technology.
Conception	Skills in Object Oriented programming and use of UML. Database design using Merise/2 method.

Languages

English	Ability to communicate in professional contexts using technical English. Scored 890/990 at the TOEIC (Test of English for International Communication) in 2005. Six months' placement in the United-Kingdom in 2007 – 2008.
Spanish	Ability to communication in everyday life contexts.
French	Mother tongue.

Leisure

Video games, guitar, rock-climbing.

Note: I would be happy to send any materials, at your request, or speak to you directly if necessary.