

David COCHARD

R&D Engineer in Computer Graphics

(+81)(0)80-4051-4637
cochard.dav@gmail.com
Meguro-ku, Tōkyō, Japan
www.davidcochard.com

OBJECTIVES

Highly-motivated software engineer seeking challenging position in the field of computer graphics where I can use and further stimulate my passion for 3D rendering and computer animation. I enjoy teamwork and I'm interested in collaborating with teams internally and externally to develop solutions to challenging problems and drive products to completion.

EDUCATIONAL BACKGROUND

- 2008-2009 **Master of Science, Computer Science** (3D graphics, animation, virtual reality, video game design)
Georgia Institute of Technology (Atlanta, United States)
Cumulative GPA : 3.88/4.0 - Major GPA : 4.0/4.0
- 2005-2008 **French Engineering Diploma, Computer Science** (3D graphics, virtual reality, computer networks)
Université de Technologie de Compiègne (Compiègne, France)
- 2004-2005 **BSc Computer Science, 2nd year - Certificate of merit, awarded to the first student in the class**
Heriot-Watt University (Edinburgh, Scotland)
- 2002-2004 **Degree in Mathematics** (called DEUG MIAS in the French system) - With honors
Université de Metz (Metz, France)

WORK EXPERIENCE

- Since Nov. 2012 **Team Lead / Senior Software Engineer**, Silicon Studio Corporation (Tōkyō, Japan)
 - Work on next-gen game engine, focusing on architecture, advanced rendering effects and game prototyping
 - Technical supervision of multiple projects involving programmers, artists and subcontractors
 - Conduct technical interviews to assess candidates applying for engineering positions in the R&D department
- 2009-2012 **Software Engineer**, Silicon Studio Corporation (Tōkyō, Japan)
 - Development of a multi-platform game engine for next-generation hardware from the ground up
 - Development of a markerless tracking system for augmented reality applications on PC and handheld devices
 - Development of a system which enables realtime dense reconstruction of scenes browsed by a single camera
 - Supervise interns on various internal R&D projects
 - Implemented various non-photorealistic rendering techniques for Playstation 3
 - Created an entire WPF-like UI system from scratch in an existing rendering engine
 - Developed an augmented reality environment for creating and animating 3D characters from freeform 2D strokes, as well as texturing features, and a server/client architecture to allow multi-user interactions.
 - Worked on various games and other 3d applications for Android phones
- Spring 2008 **International Research Internship**, Chiba Institute of Technology (Chiba, Japan)
6 months
 - Developed a solution for merging haptics technologies, augmented reality and a physics engine
 - Created an enhanced augmented reality environment with shadows, reflections and fixing occlusion problems
- Spring 2007 **International Internship**, Parexel International (Kōbe, Japan)
6 months
 - Undertook the CCNA training (administration of small and medium sized networks)
 - Developed network-related applications in ASP.NET / C# regarding access rights and ADS

TECHNICAL SKILLS

- Programming** C/C++ (10 years), C#, CUDA, Java, Git, SVN **Related fields** Augmented reality, Computer vision, Machine-learning (Adaboost, SVM), Programming on mobile devices, Haptics
- Rendering** Excellent 3D math skills, Game engine architecture, OpenGL, GLSL, DirectX, CG, Computer animation, GPU hardware/optimization/debugging, Mainstream rendering effects, HDR, Non-Photorealistic Rendering (NPR) **Other** Prototyping from specifications, Maya, Matchmoving, Adobe CS

LANGUAGES

French Native **English** Bilingual proficiency **Japanese** Professional working proficiency

INTERESTS AND LEISURE ACTIVITIES

- Volunteer** Promotion of fair trade products for "Engineers Without Borders" in France
- Passions** Exploring the world, Using technology to improve lifestyles and to entertain, State-of-the-art technologies VFX composing and generally DCC applications, Cinema, Japanese language, Philately, Oenology