

BART KEVELHAM

E-mail address and URL

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Objective

A leading role in a development team within a real-time computer graphics context, using my academic and industry experience to provide creative tools and solutions for both artists and consumers.

Employment

Senior researcher at Fondation Artanim, Geneva, Switzerland

Dec. 2012 – Nov. 2015

- R&D lead on [Taylormatic](#). A Unity3D based garment customization platform.
- Developer on [Real Virtuality](#). A VR platform combining VR headsets and motion capture.
- R&D of a position-based dynamics approach to the [physical simulation of muscle elongation](#).
- Developer on a series of games for an exhibit at the Natural History Museum of Geneva.
- Developer on ["Motion Controlled Interactive Display"](#), a Kinect controlled video carousel and viewer.
- Developer on the ["Téo et Léonie"](#) Unity3D-based mobile applications for iOS and Android, providing an animated audio book and AR content.

Research assistant at MIRALab, University of Geneva, Switzerland

Oct. 2006 – Sep. 2012

- Research into the CUDA-based implementation of physics based garment simulation software.
- Development of a real-time virtual fashion platform, Virtual Try On.
- Maintenance of and support for in-house VR/AR engine VHD++
- Contributing author to several EU and Swiss National research proposals.
- Lab representative in EU funded research projects SERVIVE and 3DLife.
- Member of 3DLife's Network Steering Board.
- Assistance in the organization of the CGI 2010 conference in Singapore.

Member of the Editorial Office for "The Visual Computer" research journal

Oct. 2006 – Sep. 2010

- Management of all (>1000) research paper submissions from initial submission to publication.
- Assistance in the scheduling of each monthly issue including special issues.

Visiting researcher Nanyang Technological University Singapore, Institute for Media Innovation

Jun. 2010 – Jul. 2010

- Assistance during the CGI 2010 conference in Singapore.
- Various demonstrations of VTO technology to academic and commercial visitors.
- Technology exchange with IMI related to the MIRALab's Virtual Try On technology.

Education

University of Twente, Enschede, The Netherlands

MSc. in Computer Science (2006)

Emphasis:

Computer graphics

Thesis: *"Real-time Shadows in Augmented Reality Environments"*

Minor:

Imaging (Digital Imaging and Image Processing)

Relevant courses:

Linear Algebra, Numerical Mathematics and Programming Techniques, Software Engineering, Graphics and Virtual Reality, Advanced Graphics

Internships:

2004 *MIRALab, University of Geneva (3 months)*

Development of translator for CgFX shaders to Cg shaders including automatic setup of appropriate OpenSceneGraph based scenegraph.

2005 *MIRALab, University of Geneva (7 months) Master project*

Development of GPU based shadow mapping capabilities for mixed reality environments.

Student Research Projects:

Rigid body dynamics

Development of a rigid body dynamics simulator.

3DWebcam

Development of 3D face tracking software in Java. Using an epipolar geometry approach with two simple webcams.

Computer competencies

Programming Languages:

C++, C#, C, and limited working experience with JavaScript, Python, SQL, Java

Engines, APIs and Libraries:

Unity3D (PC, Android, iOS, WebGL), Qt, VTK, PCL, JSON.net, Boost, OpenSceneGraph

Development tools:

Microsoft Visual Studio (2003-2013), CMake, Git, SVN, CVS

General Software:

Adobe Premiere, Adobe Photoshop, Adobe Photoshop Lightroom, Microsoft Office, Blender, Autodesk Maya

Languages

Dutch: Fluent (Native Language)

English: Fluent

German: Advanced

French: Advanced