Stefan Eilemann

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Particulars

Date of Birth	9th August 1975
Birth Place	Wittenberg, Germany
Nationality	German, Swiss Permit C

Profile

Senior software engineer and architect, with a specialization in high performance 3D graphics, C++, parallelization of applications and distributed systems. Consultant and contractor delivering solutions and expertise to enhance existing applications and to create new software.

Expertise

- High performance OpenGL applications, parallel programming, distributed systems, Virtual Reality.
- Software design, development and maintenance using C++, Java, Perl in various programming environments.
- Software development methodology during the whole lifecycle, ranging from requirements analysis, specification, design, implementation to documentation, education, debugging, profiling and support.
- In-depth knowledge of standard graphics technologies, including OpenGL, Equalizer, Chromium, OpenSceneGraph, graphics clusters and hardware.
- Broad knowledge of operating systems: Mac OS X, Linux, Windows, Irix.
- Native german speaker, fluent english, good french knowledge.

Education

Berufakademie Heidenheim
Dipl.-Ing. (eq BS) in Computer Science, September 1998

Lucas-Cranach-Gymnasium Wittenberg
Abitur (university entrance qualification), June 1994

Experience

Senior Software Engineer and Consultant — **Eyescale Software GmbH**
Neuchâtel, Switzerland — **January 2007 – current**

Founded Eyescale in January 2007. Working on the parallelization of customer applications in order to scale the display size and performance for 3D rendering. Design and development of scalable, parallel graphics applications, 3D graphics software and hardware consulting.

Researcher, Parallel Rendering — **University of Zürich**
Zürich, Switzerland — **March 2005 – current**

Initiated and developed Equalizer, a framework for building distributed, scalable OpenGL applications. Researching new algorithms for the parallelization, management and loadbalancing of applications on multiuser graphics clusters.

Senior Software Engineer, 3D Graphics **Tungsten Graphics**
Neuchâtel, Switzerland **January 2007 – June 2007**

Software consultant for visualization cluster software. Ported Equalizer to Windows XP, ported Chromium to Mac OS X and demonstrated various unmodified OpenGL applications on a large-scale display wall at WWDC07.

Senior Software Engineer **Esmertec AG**
Neuchâtel, Switzerland **January 2004 – September 2005**

Developed Java software in Esmertec's R&D group which enables user interface customization on mobile devices and desktops. Designed and implemented a fully functional 3D phone simulator for customer presentations.

Senior Software Engineer **Silicon Graphics, Inc.**
Neuchâtel, Switzerland **August 2000 – December 2003**

Worked in SGI's advanced graphics division as technical lead for OpenGL Multipipe SDK (MPK). MPK is a C/C++framework to develop high performance, scalable visualization software. Worked on DataSync, a distributed shared memory API for clusters.

Software Engineer **Freelancer**
Munich, Germany **April 2000 – July 2000**

Wrote a network configuration management solution for the internet backbone of Cable & Wireless, using Linux, Apache, MySQL and Perl.

Software Engineer **Intec GmbH**
Wessling, Germany **October 1998 – March 2000**

Worked as software engineer in the software development team for SIMPACK, a multibody simulation program. Responsible for maintaining the existing 2D and 3D graphics subsystem based on PHIGS, as well rewriting it to use Open Inventor.

Selected Projects

Equalizer Parallel Rendering Toolkit **www.equalizergraphics.com**

Jumpstarted the Equalizer project in early 2005 to create the standard toolkit for building scalable OpenGL applications. Leading the academic and commercial research as well as the development of an industrial quality open source code base. Product promotion to establish the product and to build an open source community. Providing services to commercial users of Equalizer.

Mac OS X Display Wall **Apple WWDC07**

Demonstrated Google Earth, MC Amira, LigandScout and other applications on a high-resolution (12.000x4.500) 170-inch display wall driven by a cluster using standard Apple hardware. Ported the Chromium OpenGL abstraction layer to Mac OS X and Apple's OpenGL implementation. Verification and debugging of the aforementioned, unmodified applications to run efficiently on the display wall.

References

References are available on request.