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++, parallel programming 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

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

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

EXPERIENCE

Visualization Architect — **Blue Brain Project, EPFL**
Lausanne, Switzerland — **May 2011 – current**

Software architecture and development for large-scale scientific visualizations of brain simulations.

CEO and Founder — **Eyescale Software GmbH**
Neuchâtel, Switzerland — **January 2007 – current**

Founded Eyescale in January 2007. Lead developer of the Equalizer parallel rendering framework. Deploying Equalizer in existing ISV applications to scale the display size, performance and visual quality. Software architecture, design and development, hardware and software consulting for multi-GPU workstations, graphics clusters and Virtual Reality.

Researcher, Parallel Rendering   **University of Zürich**
Zürich, Switzerland   **March 2005 − December 2007**

Researched new algorithms for the parallelization, load-balancing and data distribution of parallel OpenGL applications on graphics clusters. Invented and developed Equalizer, a framework for scalable, distributed OpenGL applications. Managing and advising on parallel rendering research for Equalizer.

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), a 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**
Software Engineer   **Intec GmbH**
Wessling, Germany   **October 1998 − March 2000**

Work details available on demand.

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

Jumpstarted the Equalizer project in early 2005, creating the standard toolkit for parallel OpenGL applications. Leading the research and development of an industrial quality open source project. Managing a variety of software developers, driving the open source community and 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.