

Simon Kallweit

Personal Data

Born 7 Nov 1982, Switzerland
Address Grubenweg 4, 3360 Herzogenbuchsee, Bern, Schweiz
Phone +41 79 596 85 00
Email simon.kallweit@gmail.com
Skype westlichter

Education

02/17/2014 – 06/03/2016 **MSc in Computer Science**, *Swiss Federal Institute of Technology (ETH)*, Zürich.
Specialization Track: Visual Computing
Thesis: “Learning High-Order Scattering in Rendering from Data” Supervisor: Prof. Markus Gross

09/20/2010 – 08/30/2013 **BSc in Computer Science**, *Swiss Federal Institute of Technology (ETH)*, Zürich.
Major: Computational Science
Thesis: “Photon Beam Methods in Rendering” Supervisor: Prof. Markus Gross

Work Experience

09/02/2014 – 01/16/2015 **Technology Intern**, *Walt Disney Animation Studios*, Burbank, CA.
Worked on several problems and tasks related to rendering of participating media within Disney’s Hyperion Renderer:

- Integration of Field3D and OpenVDB data formats
- Implementation of transformation, advection and interpolation based motion blur for volumes
- Design and development flexible yet performant framework for volume rendering
- Design and development of a high performance adaptive volume data structure

06/30/2014 – 08/22/2014 **Intern**, *DRZ*, Zürich.

- Development of CUDA based volume rendering framework using residual ratio tracking
- Extended residual ratio tracking with tri-linearly interpolated control variate

06/01/2008 – 12/16/2011 **Software Developer**, *FELA Management AG*, Diessenhofen.
Development lead for a commercial localization platform based on GSM/GPS technology. Contributions to the open-source real-time operating system eCos.

11/01/2001 – 03/31/2008 **Software Developer**, *intefo AG*, Herzogenbuchsee.
Responsible for analysis, design, implementation, testing and maintenance of software systems. Worked in multiple fields, including user interfaces, server applications and embedded systems in both Windows- and Linux-based environments.

Awards

June 2014 ETHZ Rendering Competition, 2nd place ([link](#))
Aug 2013 Demodays, 4k Procedural Graphics, 1st place ([link](#))
Mar 2013 Revision, PC 64k Intro, 2nd place ([link](#))
Aug 2012 Demodays, Realtime Size-Limited Compo, 1st place ([link](#))

Languages

German Native
English Fluent
French Basic

Computer Skills

Languages C/C++11, x86 SIMD, GLSL, CUDA, Python, JavaScript, Haskell
Tools Git, Qt, CMake, Matlab, Mathematica, L^AT_EX
OS OSX, Linux, Windows

Interests and Projects

Physically based rendering

Demoscene, size-limited programming

Electronic music production and live performance