

Martin Sebastian Senn

Date of birth 23 September 1985

Contact www.martinsebastiansenn.ch

Citizenship Swiss

Objective I am interested in a position that builds upon my experience as a computer scientist in the field of computer graphics, as well as on my background in art.

Education **MSc ETH in Computer Science** **June 2010 - date**
(Expected graduation in summer 2011)
Department of Computer Science, ETH Zürich

BSc ETH in Computer Science **June 2010**
Department of Computer Science, ETH Zürich

Swiss-Italian Art High School Diploma (Matura) **June 2006**
Liceo Artistico, Zürich

MSc Thesis **Paint Stroke Localization for 3D Painting** (*at Disney Research Zürich*)
I propose an efficient nonlinear optimization procedure to embed strokes into a 3D canvas, defined implicitly by a scalar field, that relates the 3D space to guide proxy-geometry. Different objective terms are defined to control the quality and behavior of the stroke embedding, which ultimately allows the artist to paint everywhere in space in an intuitive way. In my thesis I also present methods to reshape the canvas. The approach was implemented in C/C++, Qt 4 and OpenGL, and integrated in the prototype painting system OverCoat. The project was supervised by Bob Sumner and Joe Schmid.

Publications Schmid, J., and Senn, M. S., and Gross, M., and Sumner, B. 2011. OverCoat: An Implicit Canvas for 3D Painting. *ACM Transactions on Graphics (Proceedings of SIGGRAPH 2011)*. August 2011.

University related Experience **ETH Zürich, Applied Geometry Group** **Spring 2009**
I was involved in the production of “Silhouettes of Jazz“, an animated short. I was in charge of the visual development and modeling of the set, parts of the animation and the final editing. The movie was nominated for „Best in Show“ award at SIGGRAPH Computer Animation Festival 2009

Work Experience **Pixar Animation Studios** **current**
I am currently working as research intern in the Studio Tools group. I am supervised by Michael Kass.

Disney Research Zürich, Switzerland **2009, 2010**
From September 2009 until May 2010 I worked as intern for Jeroen van Baar and Paul Beardsley to create designs, concept art and 3D visualizations for their multi-view camera rig.

BSI Business Systems Integration, Baden, Switzerland**June 2009**

I worked as a software developer using Eclipse and Java.

BSI Business Systems Integration, Baden, Switzerland**Summer 2008**

I worked as a software development intern. My job was to create a client-adapted prototype of the BSI client relationship management system, using Eclipse and Java.

Spleiss, Leu Partner Architects, Schaffhausen, Switzerland**Summer 2006**

I was in charge of archiving blueprints and construction documents

Liceo Artistico Zürich, Switzerland**2002 - 2006**

I worked as a part-time administrator in the computer room to help other students when they had problems using graphics software, such as Photo-shop or Cinema 4D, or difficulties in using Mac OS X.

Software**Obvious tracker** - A structure from motion scene reconstruction tool. The software tracks features in an input image sequence and estimates a 3D point cloud and a camera path which can be imported into Cinema 4D for digital set extension. I wrote the software in C/C++ using OpenCV and OpenGL as a project in the Geometric Computer Vision class.**Autumn 2009****Coffee Tracer** - A simple command line raytracer, based on a framework provided in the Computer Graphics class. I added soft shadows, ambient occlusion and path tracing. My group's short movie, created with the software, won the rendering competition of the Computer Graphics class.**Autumn 2008****Extracurricular interests**

Main interests in animation and visual effects, especially set-extension and 3D set modeling, as well as in drawing, traditional painting and sculpting.

LanguagesGerman (*fluent*), English (*fluent*), Italian, French**Skills***Programming:* C/C++, Java*Software:* Maxon Cinema 4D, Apple Shake, Apple Final Cut