

Timothy Steven Schürstedt

Education

- 2021 **University of Zürich / ETH**, *MSc Computer Science*, Semester abroad.
- 2019–today **Karlsruher Institute of Technology**, *MSc Computer Science*, current GPA 1.4 (Germany).
 ◦ focus on computer graphics and physics
 ◦ lectures on GPU Computing with OpenCL, offline and online rendering, machine learning with python
- 2018–2019 **Musikhochschule Karlsruhe**, *MA Musikinformatik*.
 ◦ lectures on using machine learning in music, digital signal processing
- 2014–2018 **University Koblenz-Landau**, *BSc Computational Visualistics*, GPA 2.3 (Germany).
 ◦ Project on building a smartroom with Arduino and Arduino IDE
 ◦ Bachelor Thesis: computational composition using cellular automata and lindenmayer systems
- 2006–2014 **Paul-Klee Gymnasium Gersthofen**, Abitur.

Work Experience

- 2018–today **Student Assistant at the Institut of Applied Computer Science (KIT)**, software developer in C++.
 ◦ paper contribution at the Forum Bauinformatik Berlin, "Use of VR-Technologies in BIM / GIS"
 ◦ working with a large codebase, porting old code to modern OpenGL, optimization of the graphics engine using OpenGL and Vulkan
 ◦ extending the graphics engine to Virtual Reality using OpenVR and the HTC Vive
- 2018 **Piano Teacher at the musicschool of Winnigen**.
- 2017–2018 **Student Assistant at the Institut West (University Koblenz)**, support of the lecture database fundamentals.
- 2016–2017 **Tutor in maths and computer science at Lernstudio Barbarossa Koblenz**.

Current Projects in 2020

8-Bit Computer [link]	StevieJump [link]	StevieTracer [link]
developing a Von-Neumann 8-Bit computer architecture on breadboards, using 7400-series ICs	2D real-time rendering application, using OpenGL and C++, procedural level generation with cellular automata	Monte-Carlo Pathtracer in C++ using Next-Event-Estimation and Russian Roulette, supporting diffuse and specular spheres

Other Activities

- 2018 – today **Long Endurance Sports**, Marathons, spring distance triathlon.
- 2014 – today **Piano, Guitar and Singing**, Playing classical piano literature, e.g. Chopin, Liszt, Scriabin.

Languages

English	France	German
Fluent (B2+/C1)	Advanced (B1+)	Native speaker