Hannes Hergeth

Curriculum Vitae

Education

2019	**Visiting Scholar**, *Dartmouth College*, Hanover, NH, USA.
	Master Thesis: Higher Dimensional Photon Primitives for Surface Illumination
	Supervisor: Wojciech Jarosz, Professor Leif Kobbelt, Grade – 1.3
2017–2020	**Master of Computer Science**, *RWTH Aachen University*, Germany.
	Current Grade – 1.6 (equivalent to GPA 3.6)
2017–2018	**Erasmus Student**, *École Polytechnique Fédérale de Lausanne*, Switzerland.
	Two Erasmus semesters at EPFL.
	1st place in the Advanced Computer Graphics rendering competition.
2012–2017	**Bachelor of Computer Science**, *RWTH Aachen University*, Germany.
	Grade – 2.4 (equivalent to GPA 3.3), Minor in Business Administration
	Thesis: Extending Adaptive Progressive Photon Mapping to Participating Media
	Supervisor: Professor Leif Kobbelt, Grade – 1.0

Awards

2019	**RWTH Research Ambassador Scholarship**.

Experience

2017 - 2018	**Research Assistant**, *EPFL Realistic Graphics Lab*, Lausanne, Switzerland.
	Research areas: Polarization in Light Transport Simulation
	Physical measurements in a laboratory and implementing polarization in a renderer.
	Supervisor: Professor Wenzel Jakob
2017	**Research Intern**, *Nvidia Advanced Rendering Center*, Berlin, Germany.
	5-month internship at Nvidia Research working on state-of-the-art light transport algorithms.
	Supervisor: Alexander Keller
2016–2017	**Research Assistant**, *Computer Graphics Group RWTH Aachen*, Germany.
	Research areas: Geometry Processing - Spline Fitting
	Implementing algorithms for fitting spline surfaces to polygonal meshes.
	Supervisors: Janis Born, Professor Leif Kobbelt
2013–2015	**Research Assistant**, *Computer Graphics Group RWTH Aachen*, Germany.
	Research areas: Geometry Processing - Quad Meshing
	Designing new algorithms for multiresolution quadrangulation of triangular meshes.
	Supervisors: Hans-Christian Ebke, Professor Leif Kobbelt
2011–2012	**Software Engineer**, *Ingenieurbüro Schemmel & Partner GbR*, Aachen, Germany.
	Designing and implementing validation software for train schedules.

Projects

2012-ongoing **CudaTracerLib**: A CUDA library for rendering algorithms based on ray-tracing. Includes implementations of Bidirectional Path Tracing, Volumetric Probabilistic Progressive Photon Mapping and Vertex Connection and Merging. `https://github.com/hhergeth/CudaTracerLib`

2010-2012 **RisenEditor** A D3D11 level editor for a well-known German PC game which enables user modifications. Based on a small engine capable of hardware tessellation, deferred shading and other state-of-the-art algorithms.

Professional Service

2015 – 2017 SIGGRAPH Student Volunteer

2015 GCPR, VMV Student Volunteer

Computer Skills

Tools Git, CMake, Docker, Visual Studio, Jupyter, LaTeX

Technologies Parallel Computing in CUDA, Direct3D 11, Gurobi

Programming Languages Proficient: C++, C#, Python (NumPy, SciPy)
Beginner: Java, Matlab, Delphi

Languages

German Mother tongue

English Fluent

French Basic words and phrases only