

Patrick Schmidt

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WORK EXPERIENCE

Adobe Research, Paris, France — *Research Scientist*

JANUARY 2024 – JUNE 2024

Explored new optimization-based methods for 3D deformation and animation.

Visual Computing Institute, Aachen, Germany — *Researcher*

MAY 2017 – APRIL 2023 (Wissenschaftlicher Mitarbeiter, PhD Candidate)

Research in computer graphics, geometry processing, and numerical optimization with journal publications on surface mapping, parametrization, and automatic differentiation. Published open-source software. Supervised M. Sc. and B. Sc. research projects.

Autodesk, Cambridge, United Kingdom — *Software Engineering Intern*

JUNE 2016 – SEPTEMBER 2016

Worked as part of a scrum team on bringing automatic quad mesh generation algorithms from research to production.

RWTH Aachen University, Germany — *Student Research Assistant*

OCTOBER 2014 – MAY 2016

Helped design and publish a novel method for user-guided quad remeshing.

FOERST Driving Simulators, Germany — *Software Engineering Intern*

MARCH 2011 – JULY 2011

Implemented a map editor as part of a commercial driving simulation software in C++.

EDUCATION

RWTH Aachen University — *PhD, M. Sc., B. Sc. Computer Science*

OCTOBER 2011 – DECEMBER 2024

PhD Thesis: Intrinsic Optimization of Maps Between Surfaces. **M. Sc. Thesis:** Retrieval and Re-Embedding of Macro Constraints for Parametrization Based Quad Meshing.

B. Sc. Thesis: Towards Interactive Quadrangulation through Local Remeshing.

Coursework: Computer Graphics, Geometry Processing, Game Programming, Discrete Differential Geometry, Computer Vision, Convex Optimization, Operations Research.

TEACHING EXPERIENCE

RWTH Aachen University, Germany

OCTOBER 2012 – APRIL 2023

Supervised B. Sc. and M. Sc. theses in geometry processing. Gave invited courses at SGP Graduate School (2021) and MIT Summer Geometry Initiative (2023). Gave university tutorials and lectures in computer graphics classes, seminars, practicals. Served as teaching assistant on programming languages and automata theory.

ADDITIONAL EXPERIENCE

International Journals and Conferences — *Reviewer*

2019 – 2024

ACM Transactions on Graphics (SIGGRAPH, SIGGRAPH Asia), Computer Aided Design, Computer Aided Geometric Design, Computer Animation and Virtual Worlds, Computers & Graphics.

ACM SIGGRAPH — *Student Volunteer Team Leader*

Student Volunteer (2015, 2016), **Team Leader** (2017, 2018, 2019): Managed ~450 volunteers as one of 18 team leaders at computer graphics conference.

AWARDS & HONORS

PhD Graduation with

Summa Cum Laude at RWTH Aachen University, 2024

Günter Enderle Best Paper Award at Eurographics 2023 (first author)

Best Paper Award (1st Place) at Symposium on Geometry Processing 2022 (first author)

Best Paper Award (1st Place) at Symposium on Geometry Processing 2021 (co-author)

Günter Enderle Best Paper Award (Honorable Mention) at Eurographics 2021 (co-author)

Berthold Vöcking Master Award for outstanding master thesis, 2017

Graduation with Honors

M. Sc. at RWTH Aachen University, 2017

Germany Scholarship

Funding due to outstanding academic performance, 2014 – 2016

Dean's List for being among the top 5% of B.Sc. graduates, 2014

LANGUAGES

English: fluent
German: native