Patrick Schmidt

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WORK EXPERIENCE

Visual Computing Institute, Aachen, Germany — *Research Assistant*

MAY 2017 – PRESENT (PhD Student)
Applying numerical optimization techniques to challenging geometric problems, e.g. surface parametrization and shape correspondence. Advisor: Professor Leif Kobbelt.

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

JUNE 2016 – SEPTEMBER 2016
Worked on automatic quad mesh generation tools as part of a scrum team. Contributed to a C++ library that is used in e.g. ReMake, Fusion 360 and Maya.

RWTH Aachen University, Germany — *Student Research Assistant*

OCTOBER 2014 – MAY 2016
Designed and implemented a novel algorithm for user-guided surface parametrization.

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 — *M. Sc. Computer Science*

OCTOBER 2011 – MARCH 2017
GPA: 3.9. **Coursework**: Computer Graphics, Geometry Processing, Discrete Differential Geometry, Computer Vision, Convex Optimization, Operations Research.

PUBLICATIONS

Distortion-Minimizing Injective Maps Between Surfaces

SIGGRAPH ASIA 2019
Patrick Schmidt, Janis Born, Marcel Campen, Leif Kobbelt

Interactively Controlled Quad Remeshing of High Res. 3D Models

SIGGRAPH ASIA 2016
Hans-Christian Ebke, **Patrick Schmidt**, Marcel Campen, Leif Kobbelt

TEACHING EXPERIENCE

RWTH Aachen University, Germany — *Teaching Assistant*

Basic Techniques in Computer Graphics (2017 - present): Giving tutorials and substitute lectures, supervising TAs, creating assignments and exams (~250 students).
Current Topics in Computer Graphics (2017): Lead literature seminar (20 students).
Programming and **Formal Systems, Automata, Processes** (2012 - 2014): Gave weekly tutorials, graded homework assignments (~20 students).

ADDITIONAL EXPERIENCE

ACM SIGGRAPH — *Student Volunteer Team Leader*

Student Volunteer (2015, 2016), **Team Leader** (2017, 2018, 2019): Managed ~450 volunteers as one of 22 team leaders. Juried application process, trained and supervised volunteers on-site.

GMP 2018, Aachen, Germany — *Conference Coordinator*

Lead preparation and on-site logistics of computer graphics conference with 90 attendees.

AWARDS & SCHOLARSHIPS

Berthold Vöcking Master Award for outstanding master thesis (2017).

Graduation with Honors Awarded for GPA 3.9 and master thesis 4.0 (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).

PROGRAMMING LANGUAGES & TOOLS

C++ (7 years), Python.
Prior experience: Matlab, Maple, Java, C#, PHP, HTML, CSS, JavaScript.

SKILLS

Geometry Processing (Surface Parametrization, Quad Meshing, Inter-Surface Mapping), Computer Graphics, Numerical Optimization, Data Structures & Algorithms. Basic knowledge in Computer Vision and Machine Learning.

LANGUAGES

English: fluent
German: native

INTERESTS

Brazilian partner dance (Forró)
Sports (wakeboarding)