

# David Stutz

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## Profile

Inspired by the elegant and simultaneously versatile world of computer science, I am a student eager to learn more in all its different disciplines. I focus on computer vision and machine learning – combining the depth of theory with the most interesting applications of today's world.

Planning a career in academia, I am not only eager to acquire new knowledge, but also motivated to share this knowledge with other professionals as well as future generations.

## Academic Training

**RWTH Aachen University**, Aachen, Germany, 2011 – present

Master of Science in Computer Science, expected September 2016

Relevant Courses: Mathematical Image Processing, Convex Optimization, Data Mining Algorithms 2

Bachelor of Science in Computer Science, with Distinction (4.0 GPA), October 2014

Advisor: Prof. Dr. Bastian Leibe

Thesis: *Superpixel Segmentation using Depth Information\**

Relevant Courses: Machine Learning, Computer Vision 1 & 2, Data Mining Algorithms, Numerical Analysis 1 & 2

**Georgia Institute of Technology**, Atlanta, GA, January 2015 – May 2015

Graduate Exchange in Computer Science (4.0 GPA, Hans Hermann-Voss Scholarship)

Relevant Courses: Statistical Techniques in Robotics, Probabilistic Graphical Models

**Gymnasium Calvarienberg**, Ahrweiler, Germany, 2002 – 2011

Abitur (Very Good, A)

Majors: Physics, Mathematics, English, Geography

## Awards and Scholarships

Hans Hermann-Voss Scholarship, 2015

RWTH Aachen University Education Fund (Germany Scholarship), 2014 – present

RWTH Aachen University Dean's List, 2012, 2013, 2014

Participation in the Selection Seminar of the German National Academic Foundation, 2013

careerloft.de Scholarship, October 2012 – present

e-fellows.net Scholarship, May 2011 – present

German Physical Society Book Prize for Outstanding Merits in Physics, 2011

German Junior Academy for the Promotion of Young Talents, 2005

## Research Experience

Student Research Assistant, Computer Vision Group, RWTH Aachen University, Aachen, Germany, May 2015 – present

Advisor: Prof. Dr. Bastian Leibe

*Superpixel segmentation using depth information including a thorough comparison of state-of-the-art superpixel algorithms.*

Visiting Graduate Student, Computational Perception Laboratory, Georgia Institute of Technology, Atlanta, GA, January 2015 – May 2015

Advisor: Prof. Irfan Essa, Ph.D.

*Video segmentation using intrinsic characteristics.*

## Teaching Experience

Tutor, “Fundamentals of Mathematics II”, MATHCCES, RWTH Aachen University, Aachen, Germany, April 2014 – September 2014

*Responsibilities include presenting exercises to a group of 30 students and grading weekly homework.*

Tutor, “Calculus for Students of Computer Science”, MATHCCES, RWTH Aachen University, Aachen, Germany, October 2013 – March 2014

*Responsibilities include presenting exercises to a group of 50 students and grading weekly homework as well as the final exam.*

## Work Experience

Web Developer, RS Computer, Sinzig, Germany, January 2009 – March 2014, October 2014 – April 2015

*Development of a Content Management System including theme and plugin development for WordPress, CMSimple and xtCommerce. Design, development and maintenance of individual software for medium-sized companies.*

Student Employee, Fraunhofer Institute for Communication, Information Processing and Ergonomics, Wachtberg, Germany

Advisor: Dr. Carsten Winkelholz

August 2012 – September 2012

*Data visualization using JavaScript and d3.js.*

March 2012

*Plugin development for Piwik (Open Source Web Analytics).*

May 2011 – July 2011

*Web development using PHP and Javascript based on a HMVC framework including a database connection to a MySQL database.*

October 2009 (Intern)

*Introduction to C++ and 3D modeling using Blender.*

## Service and Memberships

Student Member, German Informatics Society, Germany, 2014 – present

Volunteer, Conference on Software Engineering, Aachen, Germany, 2013

Member, Society of Friends of the Saarland Mandolin Orchestras, Germany, 2013 – present

Member, Saarland Mandolin Orchestra, Germany, 2012 – present

Member, German Plucked String Federation, Germany, 2012 – present

Guitar Teacher, Music School Steps on Stage, Sinzig, Germany, 2011

Member, Saarland Mandolin Youth Orchestra, Germany, 2006 – 2008

## Interests and Activities

Classical and electrical guitar with 16 years of experience including several prizes from the music competition "Jugend musiziert" for classical guitar ensemble, several guitar and mandolin seminars arranged by the German Plucked String Federation, teaching experience, and memberships in various mandolin orchestras, 1998 – present

Web development and open source including plugins and themes for the content management systems WordPress and CMSimple, modules for the PHP framework Kohana as well as Twitter Bootstrap and jQuery plugins\*, 2009 – present

Massive Open Online Courses including courses on cryptography, game theory, social network analysis, and linear and integer programming, 2012 – present

\* Source code is available at <https://github.com/davidstutz>.  
Documents proving the above claims are given on request.