# RWTH STUDENT AND GEORGIA TECH ALUMNI STUDYING COMPUTER SCIENCE AND MATH

# **DAVID STUTZ**

COMPUTER VISION RESEARCH SCIENTIST

Equipped with a unique set of skills from experience in industry and academia, I want to pursue research in computer vision to make autonomous cars navigate safely through our cities.

davidstutz@web.de - davidstutz.de

# **EDUCATION**

## **RWTH Aachen University**

M.Sc., Computer Science (GPA: 1.0)

B.Sc., Computer Science (with Distinction, GPA: 1.1)

Thesis: "Superpixel Segmentation using Depth Information" Advisor: Prof. Dr. Bastian Leibe 10/2011 – today, Aachen, GER

#### Georgia Institute of Technology

Graduate Exchange Student (GPA: 4.0)

01/2015 - 05/2015, Atlanta, GA

#### **AWARDS**

Accenture Future Technology Leaders 2015 – today Hans Hermann-Voss Scholarship 2015 Germany Scholarship 2014 – today RWTH Aachen University Dean's List 2012, 2013, 2014 careerloft.de Online Scholarship 2012 – today e-fellows.net Online Scholarship 2011 – today German Physical Society Book Price 2011

#### **ONLINE COURSES**

#### Coursera

Digital Image and Video Processing, Linear and Integer Programming, Control of Mobile Robots, Natural Language Processing, Social Network Analysis, Game Theory, Cryptography, Introduction to Finance

## **PUBLICATIONS**

[1] D. Stutz. *Superpixel Segmentation: An Evaluation*. GCPR, 2015.

# **PROJECTS**

See github.com/davidstutz and davidstutz.de.

#### Computer Vision

Source code of my thesis, including several superpixel algorithms and the used benchmark; implementations of graph-based image and video segmentation and iPiano for nonconvex and non-smooth optimization.

#### Courses and Academia

Publications, thesis, seminar papers and slides, course exercises and course projects.

#### Web Development

Plugins and themes for the frontend framework Twitter Bootstrap, the content management systems Wordpress and CMSimle and the MVC framework Kohana.

# **SKILLS**

C++ (OpenCV, Boost), Python (OpenCV, Caffe), Mat-Lab, LaTeX (PGFPlots, TikZ), PHP, JavaScript (jQuery, d3.js), SQL, HTML/CSS

# **EXPERIENCE**

#### Microsoft Ireland Research Limited

#### Software Engineering Intern

In the Office Marketplace Experience Team, I worked on Centralized Deployment allowing administrators to distribute Office Add-Ins within organizations. The experience improved my software engineering and communication skills and taught me to continuously reflect and learn. 07/2016 – 09/2016, Dublin, IRL

#### MOBIS Parts Europe N.V.

#### Front Camera Intern

Development of an experimental prototype to evaluate deep learning techniques for pedestrian detection. I got first-hand insights on advanced driver assistance systems, their requirements and the problems faced during development.

04/2016 - 06/2016, Frankfurt am Main, GER

# Computer Vision Group, RWTH Aachen University

Student Research Assistant

Starting with the results from my bachelor thesis, published at GCPR 2015 [1], I worked towards a more comprehensive comparison of recent superpixel algorithms. I improved my academic writing and presentation skills and learned to value reproducible research.

05/2015 - 03/2016, Aachen, GER

# Fyusion Inc.

#### Research Scientist

I developed experimental prototypes tackling various computer vision problems including line segment and keypoint tracking, statistical clustering and pedestrian detection. By working from home, I learned to communicate results and problems effectively and self-organize my work. 05/2015 – 03/2016, San Francisco, CA

# MATHCCES, RWTH Aachen University

#### Tutor, "Calculus" and "Mathematical Foundations II"

Responsible for 30-50 students, I presented weekly exercises, graded homework and final exams, and acted as contact person. This experience improved my mathematical understanding as well as communication and presentation skills.

10/2013 - 01/2014, 04/2014 - 09/2014, Aachen, GER

#### RS Computer GmbH & Co. KG

## Web Developer

I worked on projects including plugin and theme development for content management and e-commerce systems. Additionally, I completed several development projects for medium-sized companies. This greatly benefited my project management skills.

01/2009 - 03/2014, 10/2014 - 04/2015, 10/2016 - today, Sinzig, GER

#### Fraunhofer FKIE

# Student Employee

Working on user interfaces for web analytics, including data querying and visualization, this work had major influence on my decision to pursue computer science and taught me proper programming, software engineering and foundations of databases.

10/2009, 05/2011 - 07/2011, 03/2012, 08/2012 - 09/2012, Wachtberg, GER