# **Tobias Pohlen**

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I am a research engineer and young scientist with a distinct focus on machine learning and computer vision.

I thrive on solving hard problems by developing novel and innovative ideas that challenge the state-of-the-art.



#### **EDUCATION**

#### **RWTH Aachen University.** Aachen, Germany

Master of Science (M.Sc.) in Computer Science (Minor: Math)

10.2014 - 9.2016

Graduated with distinction / Final grade: 1.0

Focus areas: Machine Learning and Deep Learning, Computer Vision, Image Processing

**Bachelor of Science (B.Sc.)** in Computer Science (Minor: Math)

10.2011 - 09.2014

Graduated with distinction / Final grade: 1.2

Focus areas: Machine Learning, Computer Vision, Numerical Mathematics

**Gymnasium Rheindahlen (High school).** Moenchengladbach, Germany 08.2001 – 07.2010

Grades are given in their original German grading system. Best grade: 1.0; worst grade: 5.0 (failing grade)

# WORK EXPERIENCE

#### Google DeepMind. London, United Kingdom

Research Engineer

4.2017 - present

Just started. Nothing interesting to report here. Move on.

#### InnovationLab, SCHUFA Holding AG. Wiesbaden, Germany

Research Engineer

10.2016 - 3.2017

I developed a deep learning based language processing system for parsing unstructured text.

#### Microsoft. Oslo, Norway

Software-Engineering Intern

08.2015 - 10.2015

I worked on the OfficeGraph and developed a debugging tool that increased the team's productivity.

# **WFMG** - **Wirtschaftsfoerderung Moenchengladbach GmbH.** Moenchengladbach, Germany

Administrator & Web-Developer

03.2006 - 06.2015

I developed, maintained, and enhanced several websites that we used to automate project specific administration tasks.

# Veritando GmbH & Co. KG. Cologne, Germany

Developer

03.2014

I implemented custom web crawlers that acquire structured data from semi-structured product review sites.

# wfp:2 GmbH & Co. KG. Moenchengladbach, Germany

Software-Engineer (web)

02.2011 - 03.2012, 09.2012, 03.2013, 09.2013

I developed and maintained many customer specific TYPO3 extensions.

### Elements of Art GmbH. Moenchengladbach, Germany

Software Engineer (web)

03.2008 - 12.2008

I developed front-end and back-end modules for the custom CMS of toggo.de.

**PUBLICATIONS** 

**Full-Resolution Residual Networks for Semantic Segmentation in Street Scenes** 

T. Pohlen, A. Hermans, M. Mathias, B. Leibe

Conference on Computer Vision and Pattern Recognition 2017 (CVPR'17).

**Semantic Segmentation of Modular Furniture** 

T. Pohlen, I. Badami, M. Mathias, B. Leibe

Winter Conference on Applications of Computer Vision 2016 (WACV'16)

RESEARCH EXPERIENCE Computer Vision Group. RWTH Aachen University

Thesis research 04.2016 – 09.2016

Thesis title: Semi-Supervised Deep Learning for Semantic Image Segmentation.

Student Research Assistant 10.2014 – 03.2016

Conducting research in the area of semantic segmentation of furniture items.

Thesis research 04.2014 – 09.2014

Thesis title: Semantic Segmentation of Cabinets using Attribute Graph Grammars.

TEACHING EXPERIENCE Chair for Mathematics D. RWTH Aachen University

Teaching Assistant/Tutor 4.2016 – 09.2016

Lecture: "Linear Algebra"

Center for Computational Engineering Science. RWTH Aachen University

Teaching Assistant/Tutor 10.2013 – 09.2014

Lectures: "Fundamentals of Mathematics II", "Analysis for CS students"
Topics: Real Multivariable Calculus, Numerical Linear Algebra, Constrained Optimization, ODEs

ACADEMIC HONORS & AWARDS **Deutschlandstipendium** (Scholarship)

10.2015 - 09.2016

Awarded to students with excellent grades.

**Dean's List** (*Award*) 12.2014, 12.2016

Awarded by the university to the top 5% of graduates.

**Schoeneborn Preis 2014** (*Award*)

12 2014

Awarded by the faculty of computer science to outstanding graduates.

SKILLS Language skills

German: Native speaker, English: Fluent (TOEFL 117/120)

Programming languages and software

C++, Python/Theano, Git, MATLAB, PHP, JavaScript, SQL, JAVA, C#

MISC.

**Caritas.** Moenchengladbach, Germany

Compulsory community service (Zivildienst) 08.2010 – 01.2011

Tanzschule Hoelters. Moenchengladbach, Germany

Instructor 01.2006 – 06.2009