Michael **Niemeyer**

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I am a determined, focused, and very broadly interested person with learning being my deepest motivation. I am enthusiastic about mathematics, computer science, and their combination. My main research interests are computer vision and machine learning.

Education

University of St Andrews   *St Andrews, United Kingdom*

MASTER OF SCIENCE IN ADVANCED COMPUTER SCIENCE (WITH DISTINCTION)   *Sep 2016 - Sep 2017*

- St Andrews GPA: 18.8 / 20

University of Barcelona   *Barcelona, Spain*

ERASMUS EXCHANGE YEAR   *Sep 2013 - Jun 2014*

- Chosen modules: English Language 1 & 2, Textual Production, Human Geography 1 & 2, Physical Geography, Climatology

University of Cologne   *Cologne, Germany*

BACHELOR OF SCIENCE IN MATHEMATICS WITH MINOR GEOGRAPHY (1.8)   *Sep 2012 - Dec 2015*

- Bachelor's thesis title: 'Local characterisation of polyhedral spaces' (1.0)
- Supervisor: Alexander Lytchak

Friherr-vom-Stein-Gymnasium Kleve   *Kleve, Germany*

HIGH SCHOOL DIPLOMA   *Jun 2001 - Jun 2011*

- Specialised courses: Mathematics (15/15), Physics (15/15), English (13/15), Philosophy (15/15)
- Final grade: 1.1

Master's Thesis

Semantic Labelling of Images by Their Content using Non-Parametric Bayesian Machine Learning and Image Search using Synthetically Generated Images   *St Andrews, United Kingdom*

SUPERVISOR: DR. OGNJEN ARANDJELOVIĆ   *Jun 2017 - Aug 2017*

- We developed an algorithm that discovers meaningful object categories and provides semantic labels for unseen images in a fully unsupervised manner
- This is realised by employing a probabilistic model from the Bayesian nonparametric framework (HDP-LDA) which detects shared clusters of quantised superpixels across the image collection
- We developed two novel approaches to provide labels for discovered object classes
- The developed algorithm can be used without any kind of tuning (e.g. choosing the number of object categories) and on any kind of image data set (from no attached information at all, to weakly-associated labels, to fully annotated) while performing on par with state-of-the-art similar applications

Experience

Sentia Australia Pty Ltd   *Sydney, Australia*

FRONT END WEB DEVELOPER (FULL-TIME)   *Sep 2017 - Present*

- I develop front end web products in accordance to newest web development and accessibility standards (W3C)
- Most projects follow the Ruby on Rails framework with Slim as the template language
- The clients vary from medical institutions, to established private equity firms, to newly founded start-ups, etc.

ecoprog GmbH   *Cologne, Germany*

STUDENT ASSISTANT (40 HOURS PER MONTH)   *Mar 2015 - Aug 2016*

- My usual tasks consisted of composing short technical articles for the company's newsletter, managing the database as well as developing GIS maps
- I also completed research and other assignments for relevant projects and studies in the field of energy technology consulting

St.-Antonius-Hospital IT Department

Kleve, Germany

Three-month intern

Jun 2015 - Aug 2015

- I was introduced to the local and wider computer network structures of the hospital together with other medical institutions, the setup procedure of new personal computers as well as everyday tasks of the IT department

Extracurricular Activity

HelpX-based Voluntary Work

Andalucia, Spain

Two-months Volunteer

Jun 2014 - Aug 2014

- I worked on small farms and an ecological hotel
- The sizes of the teams varied from one to 10 volunteers
- The performed work included gardening, fruit picking, care of children, care of animals, cooking and washing up, etc.

De Aimicitia (NGO)

Altea, Spain

Two-weeks Volunteer

Aug 2012

- Our team consisted of approximately 12 volunteers
- We collaborated with the Red Cross
- Our main objective was the cleaning of a local river and some minor municipal tasks

Honors & Awards

2011	**eFellows.net Scholarship holder**, High School Award	*Munich, Germany*
2011	**Admission to the German Society of Mathematicians**, High School Award	*Berlin, Germany*
2011	**Admission to the German Society of Physicians**, High School Award	*Bonn, Germany*

Skills and Interests

Languages	German (native), English (Level C1/2), Spanish (fluent in written and spoken language), French and Catalan (basic knowledge)
Programming	Python, Java, Matlab, R, Web Development (HTML, CSS, Bootstrap, JS, Ruby, React, Angular), Latex, Vim
Version Control	GitHub, Mercurial
Operating Systems	Linux / Unix, Microsoft Windows
Software	Microsoft Office Suite, Inkscape, Gimp, Adobe Photoshop
Other Interests	Travelling, Reading, Healthy Nutrition, Running, Strength Training, Fitness, Meditation