

STEPHAN RABANSER

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EDUCATION

M.Sc. in Computer Science <i>Technische Universität München (TUM)</i>	October 2015 – September 2018 (exp.) <i>Munich, Germany</i>
Honours Degree in Technology Management <i>Center for Digital Technology and Management (CDTM)</i>	August 2015 – September 2018 (exp.) <i>Munich, Germany</i>
Visiting Research Student <i>Massachusetts Institute of Technology (MIT)</i>	February 2016 – June 2016 <i>Cambridge, MA, USA</i>
B.Sc. in Computer Science, Minor in Economic Sciences <i>Technische Universität München (TUM)</i>	October 2012 – October 2015 <i>Munich, Germany</i>
Higher Education Entrance Qualification (A-levels) <i>Technologische Fachoberschule “Max Valier”</i>	September 2007 – July 2012 <i>Bolzano, Italy</i>

INTERNSHIPS

Intern Software Development Engineer <i>Amazon – Core Machine Learning Team</i>	August 2017 – October 2017 <i>Berlin, Germany</i>
<ul style="list-style-type: none">• Received an overview of standard time series analysis / forecasting techniques.• Implemented Bayes by Backprop (weight uncertainty estimation) for standard MLPs and RNNs in MXNet.• Contributed two chapters to upcoming MXNet book.	
Intern Software Development Engineer <i>Amazon Web Services (AWS) – OpsWorks Team</i>	July 2016 – October 2016 <i>Berlin, Germany</i>
<ul style="list-style-type: none">• Developed internal business intelligence tool (business metrics reporting and automated dashboard generation) for new OpsWorks service offering (OpsWorks for Chef Automate).• Gained deep insights into a broad range of AWS products and large-scale software development at Amazon.	

AWARDS & HONORS

Elite Network of Bavaria <i>Member</i>	April 2016 <i>Munich, Germany</i>
Apple Worldwide Developers Conference (WWDC) <i>Student Scholarship Recipient</i>	June 2013 <i>San Francisco, CA, USA</i>
<ul style="list-style-type: none">• Developed résumé iOS app to highlight academic and professional experience as well as hobbies.• Got awarded a free WWDC ticket.	
Stripe Capture the Flag <i>Hacking Contest Participant</i>	February 2012 <i>World Wide Web</i>
<ul style="list-style-type: none">• One out of 250 people, who successfully hacked themselves through Stripe’s “Capture the Flag” contest.	

PUBLICATIONS

- Stephan Rabanser, Oleksandr Shchur, Stephan Günnemann. 2017. **Introduction to Tensor Decompositions and Their Applications in Machine Learning**. *ArXiv e-prints (November 2017)*. arXiv:stat.ML/1711.10781
- CDTM Class of Fall 2015. 2015. **Entrepreneurship in Bavaria**. *Center for Digital Technology and Management*.

TECHNICAL STRENGTHS

Programming Languages	Java, Python, Swift, Ruby, C, HTML5/CSS3/JS
ML Frameworks	MXNet, Tensorflow
Tools	Git, IDEA Suite, Xcode, Sketch

LANGUAGES

German	Native
English	Fluent, TOEFL iBT 104 (October 2014)
Italian	Proficient

RELEVANT COURSEWORK

Data Science in Astrophysics and Industry

Max Planck Institute for Astrophysics

March 2017 – February 2018 (exp.)

Garching, Germany

My tasks in this project include (but are not limited to):

- Transform an existing Gaussian Mixture Model into Google Tensorflow.
- Optimize the algorithmic implementation of the model (e.g. number of mixture components, hyper-parameters).
- Find a good approximation of the used density matrix using sparse matrices.
- Explore different training methods (stochastic vs. deterministic and EM vs. gradient descent vs. Newton).
- Determine parallelizable operations and to which extend sync points are needed.

Stylight Now, Tech Lead

Managing Product Development – CDTM

October 2015 – January 2016

Munich, Germany

- Developed a simple and easy direct checkout solution for the fashion aggregator Stylight to raise the conversion rate throughout their platform, but especially in their apps.
- Created iOS app (UI/UX + code) which will be further refined by Stylight and eventually incorporated into their live platform.
- Got hands on experience with business development strategies, user and market research, project management, and collaboration in a diverse team.

Practical Course Coach (iPraktikum – Bosch Dots)

Advanced Project Management – Chair for Applied Software Engineering

October 2015 – January 2016

Munich, Germany

- Team coach for the Robert Bosch GmbH team as part of the iOS Praktikum WS 15/16.
- Developed a system that helps Bosch with matching active but also potential new suppliers to current Bosch projects in a smart and easy way.
- Cross-team modeling, architecture, and documentation instructor.

Spot.io, Bird Classifier

Deep Learning Elective – CDTM

October 2015 – December 2015

Munich, Germany

- Gained insights into the basics of applied machine learning and deep learning algorithms, frameworks, and techniques.
- Trained multiple convolutional neural network by using Nvidia Digits and Caffe for different kinds of birds.
- Developed a classification pipeline for handing over images from a broadly trained network for general bird clusters to more granular networks for specific bird species.

Teaching Assistant

Swift Introduction Course – Chair for Applied Software Engineering

August 2014 – November 2014

Munich, Germany

- Held a 2h talk and prepared the corresponding tutorial about RESTful interaction with web services within iOS and OS X apps.
- Developed a course-matching sample API by using Java technologies (Maven, Glassfish, Jersey, JPA).
- Supported course administration by writing and reviewing course assignments.
- Highlighted by Apple as one of the first Swift courses at major universities.

PERSONAL PROJECTS

Tranzport

macOS Application & API

May 2015

Munich, Germany

- Developed JSON API to interact with Munich's public transportation system by using Ruby Sinatra.
- Developed corresponding macOS status bar application to display departures for any station in Munich.

Multiply & Hours

Startup & iOS Application

January 2014 – September 2014

Munich, Germany & Berlin, Germany

- Essential member in the establishment of a startup named Multiply at a very early stage.
- Mainly responsible for calendaring and time-management app Hours for iOS.
- Left Multiply in order not to lose focus on my academic career.

Apfeltech

German Tech Blog

September 2010 – May 2014

World Wide Web

- Headed daily business as Editor-in-Chief from 2011 to 2012.
- Helped coding key parts of the website.