

Martin Schrimpf

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Education

- 10/2014 - 02/2017 **Elite Master's Program Software Engineering,** *TU & LMU Munich & University of Augsburg, GPA 4.0 w/ honors*
Elite Graduate Program for a small group of students with a focus on the areas Formal Methods, Project Management, Distributed Systems, Databases, Human Computer Interaction and soft-skills. Additional courses in Machine Learning.
Master's Thesis at *Harvard University* on the role of brain-inspired recurrent neural algorithms for advanced object recognition.
Technologies: Java, C++, SQL, QVTO, Maude, CTL, LTL
- 10/2011 - 07/2014 **Bachelor's Program Information Systems, TU Munich, GPA 3.8**
Combination of economic fundamentals and computer science with a focus on Information Systems.
Bachelor's Thesis at the *University of Sydney*: Investigation of hardware transactional memory and its effectiveness as a synchronization technique for databases, graded A+.
Study Abroad at the *Auckland University of Technology*: Courses in Artificial Intelligence and Management. Project on a novel landmark-based approach to perceptual mapping (SLAM) at CAIR
Technologies: Java, UML, SQL, C++, C, Assembly, ARIA

All grades converted into the American 4-point system

Experience

- 04/2016 - 11/2016 **Research Assistant, Kreiman Lab, Harvard Medical School**
Research at the bridge of machine learning, neuroscience and cognitive science with a focus on the role of recurrent connections. We improved object recognition performance on occluded objects from 45% with Alexnet to 74% with our models and offered a first possible application of recurrency in the human brain. We are also investigating the robustness of deep convolutional neural networks and the role of context for object detection
Technologies: Matlab, Python, keras, Theano, Linux, ECoG, LSF
- 12/2015 - 04/2016 **Research Assistant, Oracle Labs**
Enabled research teams to flexibly utilize the Oracle RDBMS on the internal cluster by developing an on-demand database module
Technologies: Linux, LSF, Virtual Machines

07/2015 - 10/2015	Software Engineering Intern, Siemens AG Architectural concept and development of a behavior-driven testing framework that can run a test specification written in natural language and that is now used in three major business areas <u>Technologies:</u> Python
07/2012 - 12/2015	Freelancer, Martin Schrimpf Software Solutions Software Development and Services - projects include: <i>Greimel IT-Systemhaus GmbH</i> Led the development of a Document Management System including optical character recognition (OCR), a financial accounting interface and a dynamic workflow and process management system which made the client company effectively paper-free <i>R-Backup Datensicherung GmbH</i> Developed a multilingual website's front- and backend to administrate partners and customers and to issue invoices <i>Promonde JLT</i> Implemented an advertisement website for Arabic countries with over 10k users per day <u>Technologies:</u> Java, JavaScript, PHP

Publications

2016	H. Tang*, B. Lotter*, M. Schrimpf*, A. Paredes, J. O. Caro, W. Hardesty, D. Cox, and G. Kreiman, "Recurrent computations for pattern completion", <i>Under review</i> ,
2016	M. Schrimpf, <i>Should i use tensorflow</i> , Seminar Paper, University of Augsburg. arXiv: 1611.08903 [cs.AI]
2014	M. Schrimpf, "Scalable database concurrency control using transactional memory", Bachelor's Thesis, Technical University Munich

Extracurricular Activities

02/2016	Artificial Intelligence Workshop Organized a two-day workshop on Neural Networks, Machine Learning and Organic Computing. The speakers were Prof. Günther Palm, PD Rolf Würtz and Dr. Joschka Bödecker
Since 08/2015	Co-Founder and Technical Lead, Integreat Platform to deliver information from local authorities and helper organizations to refugees in over 80 German cities. Implementation of the administration backend and a cross-platform app, later coordination of the development community <u>Technologies:</u> Xamarin (C#), Android (Java), WordPress (PHP)
2015 - 2016	MINGA Mentor for International Students, TU Munich
Since 10/2013	Rotaract Club München Residenz Youth club of Rotary, based on the community, helping and learning. Social initiatives, e.g. with our orphanage sponsorship