Martin Schrimpf

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GitHub https://github.com/mschrimpf Germany

Education

Education	
10/2014	Elite Master's Program Software Engineering,
- 10/2016	TU Munich, LMU Munich and University of Augsburg, Ø1.1 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.
	Master's Thesis at Harvard University on the role of brain-inspired
	recurrent neural algorithms for advanced object recognition.
	<u>Technologies</u> : Java, C++, SQL, QVTO, Maude, CTL, LTL
10/2011	Bachelor's Program Information Systems, TU Munich, Ø1.4
- 07/2014	Combination of economic fundamentals and computer science with
	a focus on Information Systems.
	Bachelor's Thesis at the <i>University of Sydney</i> : Investigation of
	hardware transactional memory and its effectiveness as a
	synchronization technique for databases, graded 1.0.
	Study Abroad at the <i>Auckland University of Technology</i> : 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
2003 - 2011	Abitur, Gymnasium Dorfen
	Focus on Mathematics, Computer Science, Economics, English.
	USA-exchange with the <i>C.D. Hylton High school</i> in Virginia
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All grades in the German scale (1.0 excellent - 5.0 fail)

Experience

04/2016 - 11/2016	Research Assistant, Kreiman Lab, Harvard Medical School Research at the bridge of machine learning, neuroscience and psychology with a focus on the role of recurrent connections. We improved object detection 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 neural networks and the role of
	scene context for object detection
	<u>Technologies</u> : Matlab, Python, keras, Theano, Linux, ECoG

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12/2015	Research Assistant, Oracle Labs
- 04/2016	Developed an on-demand database module for the computing
	cluster that is now used by internal research teams
	<u>Technologies</u> : Linux, LSF, Virtual Machines
07/2015	Software Engineering Intern , Siemens AG
- 10/2015	Architectural concept and implementation 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	Freelancer, Martin Schrimpf Software Solutions
- 12/2015	Software Development and Services - projects include:
	Greimel IT-Systemhaus GmbH Led the development of a Document
	Management System including optical character recognition
	(OCR), a financial accounting interface and a dynamic
	workflow management system
	R-Backup Datensicherung GmbH Developed a multilingual
	website's front- and backend to administrate partners and
	customers and to issue invoices
	Promonde JLT Developed an advertisement website for Arabic
	countries with over 10k users per day
	<u>Technologies</u> : Java, JavaScript, PHP
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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", submitted to Nature Neuroscience,
2016	M. Schrimpf, "Should i use tensorflow", submitted,
2014	M. Schrimpf, "Scalable database concurrency control using
	transactional memory", Bachelor's Thesis, Technical University
	Munich

Presentations

2016	Brains & Bits, NIPS Workshops
	Recurrent computations for pattern completion
2016	Systems Club, Harvard Medical School
	Recurrent computations for pattern completion

Awards

2016	FITweltweit, DAAD German Academic Exchange Service
2016	Teilstipendium, University Augsburg
2016	Integrationspreis, Government of Swabia
2016	Winner Social Society, Idea- and Startup-competition Generation-D

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2015	Deutschlandstipendium , Federal Ministry for Education and Research,
	Roland und Ute Lacher Fonds
2014	Ministeriumsstipendium, Bavarian State Ministry for Education,
2012 2016	Science and the Arts
2013 - 2016	e-fellows.net scholarship

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	Co-Founder and Technical Lead, Integreat
08/2015	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	Rotaract Club München Residenz
10/2013	Youth club of Rotary, based on the community, helping and
	learning. Social initiatives, e.g. with our orphanage sponsorship

Mentored Students

Fall 2016	Jacklyn Sarette, Emmanuel College
	Behavioral experiments on visual context
Fall 2016	Doré de Morsier, ETH Zurich
	Behavioral experiments on the recognition of novel objects
Summer	Wendy Fernandez, City University of New York
2016	Behavioral experiments and data analysis on the identification of
	occluded objects (MIT Summer Research Program)

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