

Martin Trapp

Curriculum Vitae

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Professional Experience

- 2018
2017 **Project Assistant (part-time)**, *Graz University of Technology*, Austria.
Member of the Signal Processing and Speech Communication Laboratory
Research Topics: Sum-product networks, Bayesian nonparametrics
- 2018
2015 **Research Associate (part-time)**, *Austrian Research Institute for Artificial Intelligence*, Austria.
Member of the Applied Cognitive Science and Social Robotics Group
Associated Projects: FWF P-27530, FWF P-25380
Research Topics: Bayesian Nonparametrics, Machine Learning, Natural Language Processing
- 2015
2009 **Research Associate (full-time)**, *VRVis Research Center*, Austria.
Member of the Biomedical Image Informatics Group
Research Topics: Machine Learning, Image Processing, Object Retrieval

Education

- 2015 **PhD Candidate in Computer Science**, *Graz University of Technology*, Austria.
- 2014 **Dipl. Ing. Computational Intelligence**, *Vienna University of Technology*, Austria.
- 2009 **BSc Computer Science**, *University of Applied Science Technikum Vienna*, Austria.

Research Interests

- Bayesian Nonparametrics
- Multivariate Statistics
- Tractable Probabilistic Models
- Image Processing
- Natural Language Processing

Teaching Experience

- 2009 **Course Instructor and Guide**, *Austrian Alpine Club*, Austria.
- 2008 **Blender and Java Instructor**, *Polycollege*, Austria.

Technical Skills

Programming **Julia, R, Java, Python, C++**
Tools **Stan, Tensorflow, Git**

Participation In Events

- 2017 **3rd International Conference on the Theory of Information Retrieval**, Amsterdam, Netherlands.
forthcoming
- 2017 **33rd Conference on Uncertainty in Artificial Intelligence**, Sydney, Australia.
- 2017 **11th Conference on Bayesian nonparametrics**, Paris, France.

2016	30th Annual Conference on Neural Information Processing Systems , Barcelona, Spain.
2015	29th Annual Conference on Neural Information Processing Systems , Montreal, Canada.
2015	iV&L Net Summer School on Vision and Language , Leuven, Belgium.
2014	Visual Computing for Biology and Medicine , Vienna, Austria.
2013	Neurobiology of Drosophila Meeting at Cold Spring Harbor Lab. , New York, USA.
2013	Visual Computing in Medicine Sub Committee Meeting , Heidelberg, Germany.
2012	Eurographics , Cagliari, Italy.
2009	RoboCup Workshop , Wels, Austria.

Talks

2017	Infinite Sum-Product Networks , <i>11th Conference on Bayesian nonparametrics</i> , Paris, France. Contributed Talk
2016	Software Panel , <i>Practical Bayesian nonparametrics Workshop of the 30th Annual Conference on Neural Information Processing Systems</i> , Barcelona, Spain. Invited Panellist
2013	3D Object Retrieval in an Atlas of Neuronal Structures , <i>Visual Computing in Medicine Sub Committee Meeting</i> , Heidelberg, Germany. Invited Talk

Awards & Scholarships

2017	Scholarship , <i>Rudolf Chaudoire-Stiftung</i> .
2017	SIGIR Travel Grant , <i>International Conference on the Theory of Information Retrieval</i> .
2017	UAI Scholarship , <i>Conference on Uncertainty in Artificial Intelligence</i> .
2017	ISBA Travel Award , <i>Conference on Bayesian nonparametrics</i> .
2015	Scholarship , <i>Vienna Biocenter PhD Program</i> . Rejected to accept position at Austrian Research Institute for Artificial Intelligence

Journal Articles

- Skowron, Marcin, **Trapp, Martin**, Sabine Payr, and Robert Trapp. 2016. "Automatic Identification of Character Types from Film Dialogs". *Applied Artificial Intelligence* 30 (10): 942–973.
- Trapp, Martin**, Florian Schulze, Alexey A Novikov, Laszlo Tirian, Barry J Dickson, and Katja Bühler. 2016. "Adaptive and Background-Aware GAL4 Expression Enhancement of Co-registered Confocal Microscopy Images". *Neuroinformatics* 14 (2): 221–233.
- Trapp, Martin**, Florian Schulze, Katja Bühler, Tianxiao Liu, and Barry J Dickson. 2013a. "3D object retrieval in an atlas of neuronal structures". *The Visual Computer* 29 (12): 1363–1373.

Peer-reviewed Conference & Workshop Papers

- Schabus, Dietmar, Marcin Skowron, and **Trapp, Martin**. 2017. "One Million Posts: A Data Set of German Online Discussions". In *Proceedings of the International Conference on Research and Development in Information Retrieval (SIGIR)*.
- Trapp, Martin**, Tamas Madl, Robert Peharz, Franz Pernkopf, and Robert Trapp. 2017. "Safe Semi-Supervised Sum-Product Networks". In *Proceedings of the Conference on Uncertainty in Artificial Intelligence (UAI)*.
- Trapp, Martin**, Marcin Skowron, and Dietmar Schabus. 2017. "Retrieving Compositional Documents using Position-Sensitive Word Mover's Distance". In *Proceedings of the ACM International Conference on the Theory of Information Retrieval (ICTIR)*.
- Schulze, Florian, **Trapp, Martin**, Katja Bühler, Tianxiao Liu, and Barry J Dickson. 2012. "Similarity Based Object Retrieval of Composite Neuronal Structures." In *Proceedings of the 3D Object Retrieval Workshop at Eurographics (3DOR)*, 1–8.

Poster Presentations

- Trapp, Martin**, Robert Peharz, Tamas Madl, and Franz Pernkopf. 2017. *Infinite Sum-Product Networks*.
- Trapp, Martin**, Robert Peharz, Marcin Skowron, Tamas Madl, Franz Pernkopf, and Robert Trapp. 2016. *Structure inference in Sum-Product Networks using infinite Sum-Product Trees*.
- Trapp, Martin**. 2015. *BNP.jl: Bayesian nonparametrics in Julia*.
- Trapp, Martin**, Edith Langer, Florian Schulze, Katja Bühler, and Barry J Dickson. 2013. *BrainImage - Retrieval of globally and locally similar confocal images of the Drosophila central nervous system*.
- Trapp, Martin**, Florian Schulze, Katja Bühler, Tianxiao Liu, and Barry J Dickson. 2013b. *BrainNeuron - Retrieval of globally and locally similar segmented neuronal representations in Drosophila*.

References

Dr. Franz Pernkopf

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Dr. Robert Trapp

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