Martin Trapp

Curriculum Vitae

 $\bowtie trapp.martin@gmail.com$ trappmartin.github.io in martintrapp • trappmartin





Professional Experience

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

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

Research Associate (full-time), VRVis Research Center, Austria.

Member of the Biomedical Image Informatics Group

Research Topics: Machine Learning, Image Processing, Object Retrieval



Education

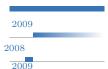
PhD Candidate in Computer Science, Graz University of Technology, Austria.

Dipl. Ing. Computational Intelligence, Vienna University of Technology, Austria.

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

Course Instructor and Guide, Austrian Alpine Clup, Austria.

Blender and Java Instructor, Polycollege, Austria.



Technical Skills

Programming Julia, R, Java, Python, C++

Tools Stan, Tensorflow, Git

2017

Participation In Events

3rd International Conference on the Theory of Information Retrieval, Amsterdam, Netherlands.

forthcoming

33rd Conference on Uncertainty in Artificial Intelligence, Sydney, Australia.

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	$\label{lem:conference} \textbf{Infinite Sum-Product Networks}, \ 11 th \ Conference \ on \ Bayesian \ nonparametrics, \ Paris, \ France. \\ Contributed \ Talk$
2016	Software Panel , Practical Bayesian nonparametrics Workshop of the 30th Annual Conference on Neural Information Processing Systems, Barcelona, Spain. Invited Panellist
2013	3D Object Retrieval in an Atlas of Neuronal Structures , Visual Computing in Medicine Sub Committee Meeting, Heidelberg, Germany. Invited Talk
	Awards & Scholarships
2017	Scholarship, Rudolf Chaudoire-Stiftung.
2017	SIGIR Travel Grant, International Conference on the Theory of Information Retrieval.
2017	UAI Scholarship, Conference on Uncertainty in Artificial Intelligence.
2017	ISBA Travel Award, Conference on Bayesian nonparametrics.
2015	Scholarship, Vienna Biocenter PhD Program.

Journal Articles

Skowron, Marcin, **Trapp, Martin**, Sabine Payr, and Robert Trappl. 2016. "Automatic Identification of Character Types from Film Dialogs". *Applied Artificial Intelligence* 30 (10): 942–973.

Rejected to accept position at Austrian Research Institute for Artificial Intelligence

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 Trappl. 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 Trappl. 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

Assoc. Prof. Technology Graz, Austria

⊠ pernkopf@tugraz.at

Dr. Robert Trappl

Prof. Emer., Head of SPSC Lab., Graz University of Austrian Research Institute for VRVis Research Center Artificial Intelligence Vienna, Austria robert.trappl@ofai.at

Dr. Katja Bühler

Group Head Vienna, Austria ⊠ buehler@vrvis.at

Dipl. Ing. Martin Trapp, Bsc.

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