Aonan Zhang

Columbia University
Department of Electrical Engineering
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Research Interests	Bayesian Nonparametric methods, Deep Learning

Professional Experience

Columbia University New York, NY — 08/2014 – Present
Research Assistant, Department of Electrical Engineering
Advisor: Prof. John Paisley   GPA: 4.03/4.00

Tsinghua University Beijing, China — 07/2012 – 07/2014
Research Assistant, Department of Computer Science and Technology
Advisor: Prof. Jun Zhu

Industrial Experience

Google Inc. New York, NY — 09/2018 – 12/2018
Student Research Intern,
Advisor: Dr. Chong Wang, Dr. Quan Wang
Project: Adaptive model selection for general sequence modelling problems

Google China AI Center Beijing, China — 06/2018 – 08/2018
Research Intern,
Advisor: Dr. Chong Wang
Project: Fully supervised speaker diarization.

Microsoft Research Redmond, WA — 05/2017 – 08/2017
Research Intern, Deep Learning Technology Center
Advisor: Dr. Yelong Shen, Dr. Jianfeng Gao
Project: Learning math-word problem through reinforcement learning.

Education

B.S. in Computer Science and Technology, Tsinghua University — 07/2012
M.S. in Computer Science and Technology, Tsinghua University — 07/2014

Publications

1. **A. Zhang**, J. Paisley. Population Random Measure Embedding. *International Conference on Machine Learning (ICML)*, Long Beach, CA, USA, 2019.

2. **A. Zhang**, Q. Wang, Z. Zhu, J. Paisley, and C. Wang. Fully Supervised Speaker Diarization, *IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, Brighton, UK, 2019.

3. **A. Zhang** and J. Paisley. Deep Bayesian Non-parametric Tracking, *International Conference on Machine Learning (ICML)*, Stockholm, Sweden, 2018.

4. S. Gultekin, **A. Zhang** and J. Paisley. Asymptotic Simulated Annealing for Variational Inference, *IEEE Global Communications Conference (GLOBECOM)*, Abu Dhabi, United Arab Emirates, 2018.

5. **A. Zhang** and J. Paisley. Markov Latent Feature Models, *International Conference on Machine Learning (ICML)*, New York, NY, 2016.

6. **A. Zhang** and J. Paisley. Stochastic Variational Inference for HDP-HMM, *International Conference on Artificial Intelligence and Statistics (AISTATS)*, Cadiz, Spain, 2016.

7. **A. Zhang** and J. Paisley. Markov Mixed Membership Models, *International Conference on Machine Learning (ICML)*, Lille, France, 2015.

8. **A. Zhang**, J. Zhu, and B. Zhang. Max-margin Infinite Hidden Markov Models, *International Conference on Machine Learning (ICML)*, Beijing, China, 2014.

9. F. Xia, N. Chen, J. Zhu, **A. Zhang**, X. Jin. Max-margin Latent Feature Relational Models for Entity-Attribute Networks, *International Joint Conference on Neural Networks (IJCNN)*, Beijing, China, 2014.

10. **A. Zhang**, J. Zhu, and B. Zhang. Sparse Relational Topic Models for Document Networks, *European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML/PKDD)*, Prague, Czech Republic, 2013.

11. **A. Zhang**, J. Zhu, and B. Zhang. Sparse Online Topic Models, *International World Wide Web Conference (WWW)*, Rio de Janeiro, Brazil, 2013.

Professional Service	**Conference Reviewer**

Conference Reviewer
Neural Information Processing Systems (NIPS) 2015, 2016, 2018, 2019
International Conference on Machine Learning (ICML) 2015, 2017, 2018, 2019
International Conference on Artificial Intelligence and Statistics (AISTATS) 2017, 2018, 2019
International Conference on Learning Representations (ICLR) 2019
Conference on Uncertainty in Artificial Intelligence (UAI) 2018, 2019
International Joint Conference on Artificial Intelligence (IJCAI) 2015, 2016

Conference Local Team
International Conference on Machine Learning (ICML) 2014

Journal Reviewer
Journal of Machine Learning Research (JMLR)
Transactions on Pattern Analysis and Machine Intelligence (TPAMI)
Transactions on Signal Processing (TSP)

Teaching Assistant Experience at Columbia
EECS: Bayesian models for machine learning, Fall 2015, Fall 2016, Fall 2017, Fall 2018
COMS: Machine Learning for Data Science, Spring 2015
ELEN: Big Data Analytics, Fall 2014; Machine Learning, Spring 2016, Spring 2018

Selected Courses at Columbia
Foundations of graphical models (Prof. David Blei, STAT, A+)
Advanced probabilistic machine learning (Prof. John Paisley, ELEN, A)
Truth in data (Prof. David Blei, STAT, A)
Advanced machine learning (Prof. Daniel Hsu, COMS, A)
Probability Theory II (Prof. Peter Orbanz, STAT, A)
Sparse Representation & High-Dimensional Geometry (Prof. John Wright, ELEN, A)

Programming Languages
Python, C/C++, Matlab