Christopher V. Aicher

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Research Areas	Approximate inference, nonparametric models, model selection, time-series, and statistical machine learning

Education

PhD in Statistics, University of Washington.	**2014-Current**
M.S. in Applied Mathematics, University of Colorado at Boulder.	**May 2014**
B.S. in Applied Mathematics, University of Colorado at Boulder.	**May 2014**
Minor in Computer Science GPA: 3.99/4.00	

Experience

Graduate Research Assistant, University of Washington,   **Jan 2015 - Current**
- Working with Professor Emily Fox to develop scalable approximate inference procedures for time-series models.

Research Scientist Intern, Amazon,   **Jun 2016 - Sept 2016**
- Worked with the Kindle devices demand planning team on forecasting sales.
- Developed a custom R package for prototyping new models.
- Tested and integrated quantile random forests to improve short-term forecasting

Machine Learning Intern, Dato (now Turi),   **Jun 2015 - Sept 2015**
- Researched, developed, and shipped a new itemset mining toolkit as part of GraphLab Create's machine learning applications library.
- Attended meetings, performed code reviews, and contributed to code base.

Undergraduate Research Assistant, University of Colorado,   **Jan 2012 - May 2014**
- Collaborated with Professor Aaron Clauset on statistical learning in networks.
- Developed a novel weighted version of the stochastic block model and variational inference algorithm for unsupervised community detection.

SFI REU Student, Santa Fe Institute,   **Jun 2013 - Aug 2013**
- Collaborated with Professor Cris Moore on robust matrix factorization at SFI.
- Developed a probabilistic generative model and variational inference algorithm for robust principal component analysis.

Skills & Coursework

Programming Languages:
- C++, Python, MATLAB, R, SQL

Statistics Related Coursework:
- Probability Theory, Stochastic Processes, Mathematical Statistics, Time-Series, GLMs,

Computer Science Related Coursework:
- Machine Learning, Algorithms, Data Structures, Database Systems

Publications (Refereed)

C. Aicher, A.Z. Jacobs and A. Clauset, "Learning latent block structure in weighted networks." *Journal of Complex Networks*, 3(2) 221-248 (2015). (Preprint arxiv:1404.0431)

Workshop and Other Papers

C. Aicher, and E.B. Fox, "Scalable Clustering of Correlated Time Series using Expectation Propagation." *KDD* Workshop on Mining and Learning from Time Series (2016). (pdf)

C. Aicher, A.Z. Jacobs and A. Clauset, "Adapting the Stochastic Block Model to Edge Weighted Networks." *ICML* Workshop on Structured Learning (2013). (Preprint arxiv:1305.5782)

C. Aicher. "A Variational Bayes Approach to Robust Principal Component Analysis." *SFI REU Report* 2013.