

Tai Qin

CONTACT INFORMATION

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EDUCATION

University of Wisconsin-Madison, Madison, WI

- Ph.D in Statistics, GPA: 4.0/4.0, Sep 2010 - May 2015
Advisor: Professor Grace Wahba and Professor Karl Rohe
- M.S. in Computer Science, GPA: 3.9/4.0, Sep 2011 - Dec 2013

University of Science and Technology of China, Hefei, China

- B.S. in Statistics, GPA: 3.95/4.0 (ranked 2/125) Sep 2006 to June 2010
- Honors Program of Special Class for the Gifted Young.

EXPERIENCE

- **Data Scientist Intern, @WalmartLabs** May - Aug 2013
 - Researched and implemented spectral co-clustering algorithm that simultaneously detects clusters of visitors as well as clusters of items based on purchasing pattern.
 - Developed personalized algorithm that improves item recommendation module on walmart.com landing page. Algorithm outperformed current baseline method by 10%.
 - Developed machine learning algorithms that predict gender with unlabeled data.
 - Implemented production code that automatically fetches weather data for different zip codes online and populates a Hive table on a daily basis.
- **Research Assistant, University of Wisconsin-Madison** Sep 2010 - Present
My research focuses on network modeling and clustering:
 - Improved Spectral Clustering Algorithm by artificially inflating node degree by a small amount. Studied its statistical estimation performance under Degree-Corrected Stochastic Blockmodel.
 - Studied Regularized Maximum Likelihood Estimator for community detection.
 - Applied and tested various clustering algorithms on Facebook ego networks, Youtube social network, and political blog networks.
- **Kaggle Modeling Competition: U.S. Census Return Rate Challenge**
 - Applied Random Forest, CART regression tree and Gradient Boosting to predict census mail return rate. Ranked top 10% in the competition.

PUBLICATIONS

- **Tai Qin**, Karl Rohe. Regularized Spectral Clustering under the Degree-Corrected Stochastic Blockmodel, *Advances in Neural Information Processing Systems*. 2013
- Karl Rohe, **Tai Qin**, Haoyang Fan. The Highest Dimensional Stochastic Blockmodel with a Regularized Estimator, *Statistica Sinica*. 2013
- Karl Rohe, **Tai Qin**. The Blessing of Transitivity in Sparse and Stochastic Networks, *technical report*. 2013

TECHNICAL SKILLS

- **Languages:** R, Matlab, Python, Java, C, Hive, MySQL, Pig
- **Miscellaneous:** Latex, Mathematica
- **Relevant Coursework:** Artificial Intelligence, Advanced Machine Learning, Nonlinear Optimization, Algorithm, Regression Models, Statistical Consulting, Decision Tree, Multivariate Analysis, Mathematical Statistics

AWARDS

- Meritorious Prize in The Mathematical Contest in Modeling(MCM) 2010
- Outstanding Prize in Statistical Modeling Competition of USTC 2008
- China National Scholarship 2008 & 2009
- USTC Outstanding Student Scholarship (First Class) 2007 & 2009