Qing Li

Contact Information
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Objective
Ph.D. in Intelligent Transportation Systems, and M.S. in Computer Science with strong programming background and machine learning/data mining skills to draw insights from data. Seeking a fulltime or intern position opportunity in **data science, big data analytics, software development** areas.

Research Interests
Current: Transportation Big Data analytics, spatio-temporal data mining, urban computing
Previous: Image annotation, optimization problem arisen from logistics

Education
University of Wisconsin - Madison, Madison, WI
Ph.D.,Intelligent Transportation, Civil and Environmental Engineering, *Expected:* Fall 2016
- Thesis Topic: When Traffic Emission Meets Big Data, Advisor: Prof. Bin Ran

M.S., Computer Science, GPA: 3.89/4.0 *Expected:* Spring 2016
Xi'an Jiaotong University, Xi'an, Shannxi, China
B.S., Electronic and Informations Engineering, GPA: 89.54/100 (Top 5%) June 2013

Coursework
Data Models and Languages, Machine Learning, Artificial Interlligence, Database Management Systems, Topics-DBMS, Natural Lang & Computing, Integer Programming, Linear Progamming Methods, Operating Systems, Image Processing & Pattern Recognition, Probability Theory & Stochastic Process

Computer Skills
Programming & **Applications:** Java, Matlab, SQL, Python, C++, R, LINGO, TeXworks, SPSS
Web Related: Javascript, Java Servlet, Struts, Google Maps API, HTML/CSS, XML, Scrapy
IDE & **Platforms:** Oracle, MySQL, Eclipse, Ipython, Webstorm, Balsamiq Mockups, Windows, Linux
Transportation: VISSIM, TransCAD, Synchro, SIDRA, ArcGIS

Research Experience
Graduate Assistant, TOPS Lab, UW-Madison — Sep 2013 to present
- Traffic Information & Emission Estimation Using Cellular Probe Data (Big Data Analytics on Billions of Records, Machine Learning, Data Mining) **(Python, Oracle 11g, SQL, JAVA, MATLAB, Scrapy)**
- Understanding Taxi Driver Behavior by Route Choice Model (Map Matching, Machine Learning)

Visiting Student, SMILES Lab, XJTU — Sep 2011 to May 2013
- Multi-label Image Annotation with Multi-kernel Learning (Multi-kernel SVM, Community Detection)
- Near-Duplicate Image Groups Detection (Social Media, Image Retrival)

Visiting Student, Mathematics and Statistics, XJTU — Apr 2010 to Feb 2012
- Optimization Problems: management of rafting in Grand Canyon, electricity pricing design on multi-objective programming, etc. (LINGO, MATLAB)
- Statistics Problems: pork price prediction, assessment of electric vehicle, etc. (MATLAB, SPSS)

Work Experience
Project Assistant (Web Developer), TOPS Lab, UW-Madison — Sep 2013 to present
- Worked on the enhancement and maintenance of Community Maps **(Struts, Java, Javascript, SQL, GoogleMapsApi, WebStorm, Balsamiq Mockups, Eclipse, Oracle 11g)**

Honors and Awards
Outstanding Graduate, Xi'an Jiaotong University — June 2013
Meritorious Winner of Mathematical Contest In Modeling, USA (9%) — Apr 2012
Meritorious Winner of Interdisciplinary Contest In Modeling, USA (20%) — Apr 2011

Publications
1. **Li, Q.**, Cheng, Y., Ding, F., Wan, X., & Ran, B. (2016, January). "City-Wide Hourly Traffic Emission Estimation Using Cellular Activity Data," *In Transportation Research Board 95th Annual Meeting.*
2. Gu, Y., Qian, X., **Li, Q.**, Wang, M., Hong, R., & Tian, Q., "Image Annotation by Latent Community Detection and Multikernel Learning," *in Image Processing, IEEE Transactions on* , vol.24, no.11, pp.3450-3463, Nov. 2015.
3. Li, J., Qian, X., **Li, Q.**, Zhao, Y., Wang, L., & Tang, Y. Y. (2015). Mining near duplicate image groups. *Multimedia Tools and Applications*, 74(2), 655-669.
4. **Li, Q.** , Gu, Y., & Qian, X. (2013, October). LCMKL: latent-community and multi-kernel learning based image annotation. *In Proceedings of the 22nd ACM international conference on Conference on information & knowledge management* (pp. 1469-1472). ACM.
5. Liu, L., **Li, Q.**, Gu, Y., Chen, L., & Li, H.. The Study on Electricity Pricing Design Basing on Multiobjective Programming. *Journal of Xian Jiaotong University.* Vol.47 No.10, Oct. 2013 (In Chinese)

Patent
1. Ran, B., Cheng, Y., Jin, J., Ding, F., & **Li, Q.**. "Traffic jam grade detection method based on cellphone signal data", Publication number: CN104200667 A.

Papers Under Review
1. **Li, Q.** et al. "A Novel Model for Estimating Citywide Hourly Traffic Emissions Using Cellular Phone Activity Data", *Intelligent Transportation Systems, IEEE Transactions on.*
2. Ran, B., Cheng, Y., Jin, J., Ding, F., & **Li, Q.**. "A Feature Based Approach to Large-Scale Freeway Congestion Detection Using Full Cellular Activity Data" , *Intelligent Transportation Systems, IEEE Transactions on.*