

Liang Tang

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| CONTACT INFORMATION | ECS Building, 268 School of Computing and Information Sciences Florida International University, Miami, FL, 33199 USA | <i>Phone:</i> (305) 608-0496 <i>E-mail:</i> ltang002@cs.fiu.edu <i>WWW:</i> www.cs.fiu.edu/~ltang002 |
| RESEARCH INTERESTS | Data mining and machine learning techniques with their applications including system management, system logs, event analysis, recommender systems and computational advertising. | |
| PROFESSIONAL ACTIVITIES | Session Chair for “Data Streams and Ranking” of ACM CIKM 2013. Reviewer for IEEE Transactions on Knowledge and Data Engineering (TKDE), Data and Knowledge Engineering (DKE), ICMLA 2011, 2013. External reviewer for ICDM 2010, 2012 and 2013, CIKM 2010, 2012 and 2013, ICDE 2013, TKDD, KNOSYS, ACM-TIST. | |
| PROFESSIONAL EXPERIENCE | LinkedIn Corporation , Mountain View, CA, USA <i>Applied Research Intern in Applied Relevance Sciences, 05/2013 - 08/2013</i> <ul style="list-style-type: none">• Investigated exploration/exploitation algorithms, such as UCB and Thompson Sampling, for Ads recommendation and news ranking problems in LinkedIn website.• Implemented a Hadoop based replayer offline evaluation for exploration/exploitation algorithms and empirically studied the delay impact for the ad format recommendation model. IBM T.J. Watson Research Center , Hawthorne, NY, USA <i>Research Intern in in Service Management Department, 05/2012 - 08/2012</i> <ul style="list-style-type: none">• Investigated methodologies for discovering false negatives (missing alerts) of IBM Tivoli monitoring system based on manual incident tickets. The aim is to optimize the configuration of IBM Tivoli Monitoring System in individual and dynamic IT infrastructures. IBM T.J. Watson Research Center , Hawthorne, NY, USA <i>Research Intern in in Service Management Department, 05/2011 - 08/2011</i> <ul style="list-style-type: none">• Proposed and designed a component for IBM Tivoli Monitoring for optimizing system monitoring configurations based on the incident ticket resolutions to reduce the number of non-actionable tickets. Microsoft Research Asia , Beijing, China <i>SDE Intern in Data Intelligence and Tools Group (Now merged to the Web Search and Data Mining Group), 05/2007 - 12/2007</i> <ul style="list-style-type: none">• Developed a toolkit of CART (Classification and Regression Tree) algorithm on a large-scale parallel computing system, and applied it to analyze the Windows Vista boot time data set to discover the bottleneck features of Windows startup. Was in charge of implementation of single-machine version and parallel version of the CART algorithms.• Developed a middle engine to handle multidimensional query on the BigTable system (a distributed data table), which was used in the prototype of SQMExplorer and several teams in MSRA. Was in charge of the design and implementation by using C++. | |
| PUBLICATIONS | Liang Tang , Romer Rosales, Ajit Singh, Deepak Agarwal. “Automatic Ad Format Selection via Contextual Bandits”, in <i>Proceedings of the 22th ACM Conference on Information and Knowledge</i> | |

Management (full paper, invited paper) (**CIKM 2013**), pages 1587-1594.

Liang Tang, Tao Li. “Searching Similar Segments over Textual Event Sequences”, in *Proceedings of the 22th ACM Conference on Information and Knowledge Management (full paper, acceptance rate: 143/848=16.7%)* (**CIKM 2013**), pages 329-338.

Li Zheng, Chao Shen, **Liang Tang**, Chunqiu Zeng, Tao Li, Steve Luis, Shu-Ching Chen. “Data Mining Meets the Needs of Disaster Information Management”, in *IEEE Transactions on Human-Machine Systems*, 2013, Volume 43, Issue: 5, September 2013, pages 451 - 464.

Shunzhi Zhu, **Liang Tang**, Tao Li. “Identifying Missed Monitoring Alerts based on Unstructured Incident Tickets”, *Knowledge-Based Systems*, 2013, Volume 53, November 2013, pages 40-50.

Liang Tang, Tao Li, Larisa Shwartz, Genady Ya. Grabarnik. “Identifying Missed Monitoring Alerts based on Unstructured Incident Tickets”, in *Proceedings of the 9th International Conference on Network and Service Management (CNSM 2013)*, Zurich, Switzerland, Oct. 2013 (short paper).

Liang Tang, Tao Li, Larisa Shwartz, Florian Pinel, Genady Grabarnik. “An Integrated Framework for Optimizing Automatic Monitoring Systems in Large IT Infrastructures”, in *Proceedings of the 19th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (Industrial/Government Track, full presentation)* (**KDD 2013**).

Liang Tang, Tao Li, Yexi Jiang, Zhiyuan Chen. “Dynamic Query Forms for Database Queries”, in *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 19 April 2013.

Liang Tang, Tao Li, Larisa Shwartz, Genady Grabarnik. “Recommending Resolutions for Problems Identified by Monitoring”, in *Proceedings of the IFIP/IEEE International Symposium on Integrated Network Management (regular technical track, acceptance rate: 27.0%)* (**IM 2013**).

Liang Tang, Tao Li, Larisa Shwartz. “Discovering Lag Intervals for Temporal Dependencies”, in *Proceedings of 18th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (Research Track, full paper)* (**KDD 2012**).

Liang Tang, Tao Li, Florian Pinel, Larisa Shwartz, Genady Grabarnik. “Optimizing System Monitoring Configurations for Non-Actionable Alerts”, in *Proceedings of IEEE/IFIP Network Operations and Management Symposium (Full paper, acceptance rate: 26.2%)* (**NOMS 2012**).

Liang Tang, Tao Li. “LogSig: Generating System Events from Raw Textual Logs”, *Proceedings of the 20th ACM Conference on Information and Knowledge Management (Full paper, acceptance rate: 15%)* (**CIKM 2011**).

Li Zheng, Chao Shen, **Liang Tang**, Tao Li, Steve Luis, Shu-Ching Chen. “Applying Data Mining Techniques to Address Disaster Information Management Challenges on Mobile Devices”, in *Proceedings of the 17th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (Industrial/Government Track, full presentation, acceptance rate: 8%)* (**KDD 2011**).

Liang Tang, Tao Li: “LogTree: A Framework for Generating System Events from Raw Textual Logs”, in *Proceeding of the 10th IEEE International Conference on Data Mining (regular paper, acceptance rate: 9%)* (**ICDM 2010**).

Li Zheng, Chao Shen, **Liang Tang**, Tao Li, Steve Luis, Shu-Ching Chen, Vagelis Hristidis: “Using Data Mining Techniques to Address Critical Information Exchange Needs in Disaster Affected Public-Private Networks”, in *Proceeding of the 16th ACM SIGKDD Conference (Industrial/Government Track, full presentation, acceptance rate 11%)* (**KDD 2010**).

HONORS AND
AWARDS

- Best Graduate Student Research Award, School of Computing and Information Sciences, FIU, 2013.
- Student Travel Award of the 18th ACM SIGKDD conference, 2012.
- The Excellent Graduate Student Award of Sichuan University in 2007-2008, 2008.
- The 2nd National Open Source Software Competition (China), Award finalists, 2006.
- Amway College Student's computer works competition, Second class award, 2006.
- The 4th ACM Programming Contest of Sichuan University, winner's prize, 2005.
- Microsoft MVP (Most Valuable Professional) Award (Visual C++), 2004.
- The Initiative Student Award of Computer School of Sichuan University, 2004.
- The Excellent Student Award of Sichuan University in 2003-2004 School Years, 2004.
- The Scholarships of Sichuan University from 2002 to 2003 School Years, 2003.

EDUCATION

Florida International University, Miami, Florida USA

Ph.D., Computer Science, August 2009 - Present

- Advisor: Tao Li
- GPA: 3.9/4.0(Major)

Sichuan University, Chengdu, Sichuan China

M.S., Computer Science, August, 2006 - June, 2009

- Advisor: Chang-jie Tang
- GPA: 3.37/4.0(Major)

Sichuan University, Chengdu, Sichuan China

B.A., Computer Science, August, 2002 - June, 2006

- GPA: 3.47/4.0(Major), rank : 10%

PATENT

YOR820110662US1: Methods and Apparatus for System Monitoring, with Florian PINEL and Larisa Shwartz (working in IBM, 2011 summer), published at May. 9, 2013.

COMPUTER SKILLS

- Proficient in using C/C++, Java to develop large-scale software systems and multi-threads programming and MapReduce jobs.
- Familiar with MATLAB, Python, Hadoop.