Yuzhe (Richard) Tang

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4-206 Center for Science and Technology, Syracuse, NY 13244-4100, USA

Acadmic Position

2014 -   Assistant Professor, Department of EECS, Syracuse University

Education

Ph.D.   *Georgia Institute of Technology* (Atlanta, GA USA),2009-2014
M.Sc.   *Fudan University* (Shanghai, China),2006-2009
B.Sc.   *Fudan University* (Shanghai, China),2002-2006

Research Interests

Applied Cryptography, Database Systems, Distributed Computing

Publication

In submission	*Log-structured Authenticated Data Storage with Minimal Trust*	
	Yuzhe Tang, Ju Chen	
In submission	*Oblivious Multi-Party Databases*	
	Yuzhe Tang, Ju Chen, Amin Fallahi	
In submission	*Privacy-Preserving Locator Services by Multi-Party Deterministic Noise Generation*	
	Yuzhe Tang, Katchaguy Areekijseree, Amin Fallahi, Shuang Wang	
SecDev'16	*Towards Building Practical And Secure Multi-Party Databases*	
	Yuzhe Tang, Wenqing Zhuang	
	IEEE Cybersecurity Development Conference 2016 (Abstract)	
BioInformatics'16	*HEALER: Homomorphic computation of ExAct Logistic rEgRes-sion for secure rare disease variants analysis in GWAS*	
	Shuang Wang, Y. Zhang, W. Dai, K. Lauter, M. Kim,**Yuzhe Tang**, X. Jiang	
	Oxford Journals Bioinformatics, doi: 10.1093/bioinformatics/btv563	
BMC'15	*Privacy-preserving GWAS analysis on federated genomic datasets*	
	Scott D Constable,**Yuzhe Tang**, Shuang Wang, Xiaoqian Jiang, Steve Chapin	
	BMC Medical Informatics and Decision Making 2015, [Open access]	
TKDE'15	*Privacy-Preserving Multi-Keyword Search in Information Networks*	
	Yuzhe Tang, Ling Liu	
	IEEE Trans. Knowl. Data Eng. 27(9): 2424-2437 (2015)	
CCGrid'15 (Best)	*Deferred Lightweight Indexing for Log-Structured Key-Value Stores*	
	Yuzhe Tang, Arun Iyengar, Wei Tan, Liana Fong, Ling Liu, Balaji Palanisamy	
	IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing 2015: 11-20	
	Best Paper Award	
HPBDC'15	*KTV Tree: Interactive Top-K Aggregation on Large Dataset in Cloud*	
	Yuzhe Tang, Ling Liu, Junichi Tatemura, Hakan Hacigumus	
	IEEE International Conference of Distributed Computing Systems Workshops 2015: 136-141	
HotCloud'15	*Privacy-Preserving Offloading of Mobile App to the Public Cloud*	
	Yue Duan, Mu Zhang, Heng Yin,**Yuzhe Tang**	
	USENIX Workshop on Hot Topics in Cloud Computing 2015	
TBC'15	*Secure Multi-party Computation on Grid Logistic Regression*	
	Haoyi Shi, Shuang Wang, Wenrui Dai,**Yuzhe Tang**, Xiaoqian Jiang, LucilaOhno-Machado	
	Annual Translational Bioinformatics Conference 2015	
ACSAC'14	*Lightweight Authentication of Freshness in Outsourced Key-Value Stores*	

	Yuzhe Tang, Ling Liu, Xin Hu, Jiyong Jang
	USENIX/ACM Annual Computer Security Applications Conference 2014: 176-185
ICDCS'14	*e-PPI: Locator Service in Information Networks with Personalized Privacy Preservation*
	Yuzhe Tang, Ling Liu, Arun Iyengar
	IEEE International Conference of Distributed Computing Systems 2014: 186-197
EDBT'14	*Diff-Index: Differentiated Index in Distributed Log-Structured Data Stores*
	Wei Tan, Sandeep Tata, **Yuzhe Tang**, Liana Fong
	International Conference on Extending Database Technology 2014: 700-711
JDPD'14	*Anonymizing Continuous Queries with Delay-tolerant Mix-zones on Road Networks*
	Balaji Palanisamy, Ling Liu, Kisung Lee, Shicong Meng, **Yuzhe Tang**
	International Journal of Distributed and Parallel Databases 32(1): 91-118 (2014)
ICDE'14	*Outsourcing multi-version key-value stores with verifiable data freshness*
	Yuzhe Tang, Ling Liu, Ting Wang, Xin Hu, Reiner Sailer, Peter Pietzuch
	IEEE International Conference on Data Engineering 2014: 1214-1217
TPDS'13	*Auto-pipelining for Data Stream Processing*
	Yuzhe Tang, Bugra Gedik
	IEEE Trans. Parallel Distrib. Syst. 24(12): 2344-2354 (2013)
Cloud'13	*Residency Aware Inter-VM Communication in Virtualized Cloud: Performance Measurement and Analysis*
	Qi Zhang, Ling Liu, Yi Ren, Kisung Lee, **Yuzhe Tang**, Xu Zhao, Yang Zhou
	IEEE International Conference on Cloud Computing 2013: 204-211
Cloud'13	*Efficient and Customizable Data Partitioning Framework for Distributed Big RDF Data Processing in the Cloud*
	Kisung Lee, Ling Liu, **Yuzhe Tang**, Qi Zhang, Yang Zhou
	IEEE International Conference on Cloud Computing 2013: 327-334
MSN'12	*Location Privacy with Road Network Mix-Zones*
	Balaji Palanisamy, Ling Liu, Kisung Lee, Shicong Meng, **Yuzhe Tang**
	IEEE International Conference on Mobile Ad-hoc and Sensor Networks 2012: 124-131
Cloud'12 (Best)	*Reliable State Monitoring in Cloud Data Centers*
	Shicong Meng, Arun Iyengar, I. Rouvellou, L. Liu, K. Lee, B. Palanisamy, **Yuzhe Tang**
	IEEE International Conference on Cloud Computing 2012: 951-958
	Best Paper Award
CIKM'11	*Privacy Preserving Indexing for eHealth Information Networks*
	Yuzhe Tang, Ting Wang, Ling Liu, Shicong Meng, Balaji Palanisamy
	Conference on Information and Knowledge Management 2011: 905-914
TPDS'11	*A Lightweight Multi-dimensional Index for Complex Queries over DHTs*
	Yuzhe Tang, Jianliang Xu, Shuigeng Zhou, Wang-Chien Lee, Dingxiong Deng, Yue Wang
	IEEE Trans. Parallel Distrib. Syst. 22(12): 2046-2054 (2011)
TKDE'10	*LIGHT: A Query-Efficient yet Low-Maintenance Indexing Scheme over DHTs*
	Yuzhe Tang, Shuigeng Zhou, Jianliang Xu
	IEEE Trans. Knowl. Data Eng. 22(1): 59-75 (2010)
ICDCS'09	*m-LIGHT: Indexing Multi-Dimensional Data over DHTs*
	Yuzhe Tang, Jianliang Xu, Shuigeng Zhou, Wang-Chien Lee
	IEEE International Conference of Distributed Computing Systems 2009: 191-198
ICDCS'08	*LHT: A Low-Maintenance Indexing Scheme over DHTs*
	Yuzhe Tang, Shuigeng Zhou
	IEEE International Conference of Distributed Computing Systems 2008: 141-151

Patents

2014	Adaptive Auto-pipelining in Stream Processing Applications: US20140101668
	Bugra Gedik, Scott A. Schneider, **Yuzhe Tang**, Kun-lung Wu

Teaching

Spring 2017	CIS/CSE600, *Applied Cryptography*
	CIS655/CSE661, *Advanced Computer Architecture*
	CIS423, *System Programming*
Spring 2016	CIS700/CSE791, *Big-Data and Cloud Security*, website: [link]
Fall 2015	CIS655/CSE661, *Advanced Computer Architecture* (180 students), website: [link]
Spring 2015	CIS700/CSE791, *Distributed Systems in Cloud*, website: [link]

| Fall 2014 | CIS655/CSE661, *Advanced Computer Architecture* (180 students) |

Research Funding

| 2015-2016 | Optimizing Privacy-Preserving Analytics in Information Networks
Yuzhe Tang (PI), $69,861 |

Student Supervision

Ph.D.	Ju Chen, Wenqing Zhuang, Amin Fallahi
Master	Achal Prakashbhai Velani, Haoyi Shi, Katchaguy Areekijseree
Alumni	Hari Krishna Gajarla (M.S.), Bloomberg, L.P.

Professional Services

P.C.	TOCS 2017
	ICDCS 2017, 2015
	IEEE Cloud 2015
	PAIS 2016, 2015
	TKDE 2017,2016, 2015
	TSC 2017,2016, 2015
	TWeb 2015, TCSVT 2014, Middleware 2012

Internship Experience

05/2013-08/2013	IBM Research (T.J. Watson Lab) at Yorktown Heights, NY USA
05/2012-08/2012	IBM Research (T.J. Watson Lab) at Yorktown Heights, NY USA
05/2011-08/2011	IBM Research (T.J. Watson Lab) at Hawthorn, NY USA
05/2010-08/2010	NEC Labs America at Cupertino, CA USA
01/2009-06/2009	Microsoft Research Asia at Beijing, China
01/2006-04/2006	IBM Corp. at Shanghai, China

Honors and Awards

- Best paper award, 15th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing, 2015
- Chinese Government Award for Outstanding Self-financed Students Abroad, 2012
- Best paper award, 5th International Conference on Cloud Computing, 2012
- Outstanding Master Thesis of Shanghai, Shanghai Government, 2010
- Tung's Oriental Scholarship, Tung's Oriental, 2008
- HP Distinguished Chinese Student Scholarship, Hewlett-Packard, 2008
- ICDCS Student Travel Grant, TCDP (IEEE Computer Society), 2008
- Graduate Student Fellowship of Fudan University, 2007-2008 (2 times)
- Outstanding Graduated Student of Fudan University, 2006
- Excellence Award, Tencent Innovation Contest, 2006
- The Peoples Scholarship of Fudan University, 2002-2006 (4 times)
- Chinese Physics Olympiads, First Prize in Hunan Province, 2001

Invited Talks

NKU'14	Scalable and secure cloud service in big data systems North Kentucky University, Newport, KY, Department of Computer Science, Feb. 24, 2014
UDel'14	Scalable and secure cloud service in big data systems University of Delaware, Newark, DE, Department of Computer and Information Sciences, Feb. 28, 2014
NECLab'14	Scalable and secure cloud service in big data systems NEC Lab America, Princeton, NJ,

March 7, 2014

IBM'14   Scalable and secure cloud service in big data systems
IBM Research, Yorktown Heights, NY, March 18, 2014

MST'14   Scalable and secure cloud service in big data systems
Missouri University of Science and Technology, Rolla, MO,
Computer Science Department,
March 31, 2014

HealthTech'14   Searching HIE with Differentiated Privacy Preservation [link]
Usenix Security, San Diego, CA,
August 31, 2014

LSU'14   Securing Key-Value Stores in the Public Cloud using Lightweight Authentication [link]
Louisiana State University, Baton Rouge, LA,
Department of Computer Science,
December 16, 2014

Fudan'16   Lightweight Authentication of Freshness in Outsourced Key-Value Stores
Fudan University, Shanghai, China
School of Computer Science,
Dec. 28, 2016

NUDT'17   Lightweight Authentication of Freshness in Outsourced Key-Value Stores
National University of Defense and Technology, Changsha, China
Department of Computer Science,
Jan. 4, 2017

XJTU'17   Lightweight Authentication of Freshness in Outsourced Key-Value Stores
Xi'an Jiaotong University, Xi'an, China
School of Computer Science,
Jan. 10, 2017

Cornell'17   Lightweight Authentication of Freshness in Outsourced Key-Value Stores
Cornell University, Ithaca, NY
Department of Computer Science,
Feb. 3, 2017

MoST'17   TACNY Junior Cafe Scientifique: Cloud Computing [link]
Museum of Science & Technology, Syracuse, NY
June 17, 2017