

Guangmo (Amo) Tong

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EDUCATION

The University of Texas at Dallas (UTD)

Ph.D. in Computer Science

Ericsson Graduate Fellowship in 2016-2017

Richardson, TX
Expected Spring 2018

Beijing Institute of Technology

Bachelor of Mathematics and Applied Mathematics

Minors in Economics.

1st Level College Scholarship for Academic Performance

Beijing, China
July 2013

RESEARCH INTERESTS

- **Data Science:** computational social system, especially in analysis of emerging topics of modern online social networks, e.g., social network security, social friending and online advertising, via quantitative analysis techniques, including approximation algorithm, statistics, game theory, machine learning, *etc.*
- **Theoretical Computer Science:** algorithm analysis, submodular function analysis, evasiveness of boolean functions and steiner tree problem, as minor research interests.

RESEARCH EXPERIENCE

The University of Texas at Dallas

Data Communication and Data Management Lab

Advisor: Dr. Ding-Zhu Du

Richardson, TX
2014 - Present

- **Development of approximation algorithms for influence maximization, rumor blocking, profit maximization in large online social networks.**
- **Game-theoretical analysis of rumor blocking in large online social networks.**
- **Quantitative analysis of community detection in social systems.**
- **Devising new sampling technique for target friending in social networks.**
- **Simulations of influence diffusion on graphs of real social networks e.g. Facebook, Google+ and Pokec.**

The University of Texas at Dallas

Real-time System Lab

Advisor: Dr. Cong Liu

Richardson, TX
2013 - 2014

- **Schedulability analysis of soft/hard real-time systems.**
- **Investigation of the utilization loss of EDF scheduling algorithm on heterogeneous multiprocessors.**
- **Design C++ based simulation framework for real-time tasks.**

TEACHING EXPERIENCE

The University of Texas at Dallas <i>Teaching Assistant</i> Course project mentor, assignment grading, special lecturing, etc.	Richardson, TX 2014 – Present
CS 6382 Recent Advances in Computing - Social Networks	Fall 2017
CS 6313 Statistical Methods for Data Science	Fall 2017
CS 6382 Theory of Computation	Fall 2017
CS 6313 Statistical Methods for Data Science	Summer 2017
CS 6363 Design and Analysis of Computer Algorithms	Spring 2017
CS 6313 Statistical Methods for Data Science	Spring 2017
CS 6382 Theory of Computation	Fall 2016
CS 6363 Design and Analysis of Computer Algorithms	Fall 2016
CS 4384 Automata Theory	Spring 2016
CS 6363 Design and Analysis of Computer Algorithms	Spring 2016
CS 5333 Discrete Structures	Fall 2015
CS 6363 Design and Analysis of Computer Algorithms	Fall 2015
CS 6301 Special Topics in Computer Science - Web Programming Languages	Spring 2015
CS 6363 Design and Analysis of Computer Algorithms	Spring 2015
CS 6301 Special Topics in Computer Science - Statistics for Data Sciences	Fall 2014
CS 3341 Probability and Statistics in Computer Science and Software Engineering	Fall 2014
CS 2305 Discrete Math for Computing	Summer 2014
CS 5333 Discrete Structures	Spring 2014
CS 3306 Discrete Mathematics for Computing	Spring 2014

ACTIVITIES

Peer Referee	2014 – Present
IEEE Transactions on Network Science and Engineering (TNSE)	
The Computer Journal	
Information Systems (IS)	
Journal of Combinatorial Optimization (JOCO)	
Peer-to-Peer Networking and Applications (PPNA)	
Theoretical Computer Science (TCS)	
IEEE Transactions on Parallel and Distributed Systems (TPDS)	
Computational Social Networks (CSON)	

Professional Membership

IEEE Member
ACM Member
IEEE Young Professionals
IEEE Computer Society Member

Public Speaking

<i>Optimization Problems in Social Networks.</i>	UTD PhD & Faculty CS Mixers, Feb 2017
<i>Terminal-set-enhanced Community Detection.</i>	UTD PhD & Faculty CS Mixers, Oct 2015
<i>Scheduling in Multiprocessor Real-time Systems.</i>	UTD PhD & Faculty CS Mixers, Feb 2014

PUBLICATIONS

Four conference papers and six journal papers published. Eleven first-author papers published or under review.

- **Guangmo Tong**, Weili Wu, Shaojie Tang, and Ding-Zhu Du. "Adaptive influence maximization in dynamic social networks." *IEEE/ACM Transactions on Networking (TON)* 25, no. 1 (2017): 112-125.
- **Guangmo Tong**, Weili Wu, Ling Guo, Deying Li, Cong Liu, Bin Liu and Ding-Zhu Du. "An Efficient Randomized Algorithm for Rumor Blocking in Online Social Networks." In Proc. of the 36th Annual IEEE International Conference on Computer Communications (**INFOCOM**), 2017, **invited for a special issue to IEEE Transactions on Network Science and Engineering (TNSE)**.
- **Guangmo Tong**, Weili Wu, Panos M. Pardalos, and Ding-Zhu Du. "On positive-influence target-domination." *Optimization Letters (OL)* 11, no. 2 (2017): 419-427.
- **Guangmo Tong**, Lei Cui, Weili Wu, Cong Liu, and Ding-Zhu Du. "Terminal-set-enhanced community detection in social networks." In Proc. of the 35th Annual IEEE International Conference on Computer Communications (**INFOCOM**), 2016.
- **Guangmo Tong**, Shasha Li, Weili Wu, and Ding-Zhu Du. "Effector Detection in Social Networks." *IEEE Transactions on Computational Social Systems (TCSS)* 3, no. 4 (2016): 151-163.
- **Guangmo Tong**, and Cong Liu. "Supporting Soft Real-Time Sporadic Task Systems on Uniform Heterogeneous Multiprocessors with No Utilization Loss." *IEEE Transactions on Parallel and Distributed Systems (TPDS)* 27, no. 9 (2016): 2740-2752.
- **Guangmo Tong**, and Cong Liu. "Supporting read/write applications in embedded real-time systems via suspension-aware analysis." In Proc. of IEEE International Conference on Embedded Software (**EMSOFT**), 2014,
- Zhou, Husheng, **Guangmo Tong**, and Cong Liu. "Gpes: a preemptive execution system for gpgpu computing." In Proc. of IEEE Real-Time and Embedded Technology and Applications Symposium (**RTAS**), 2015.
- Zhao Zhang, Yishou Shi, James Willson, Ding-Zhu Du, **Guangmo Tong**. "Viral Marketing with Positive Influence." In Proc. of the 36th Annual IEEE International Conference on Computer Communications, (**INFOCOM**), 2017.
- Wang, Huijuan, Bin Liu, Xiaoli Wang, **Guangmo Tong**, Weili Wu, and Hongwei Gao. "Total coloring of planar graphs without adjacent chordal 6-cycles." *Journal of Combinatorial Optimization (JOCO)* (2017): 1-9.
- **Guangmo, Tong**, Weili Wu, and Ding-Zhu Du. "On Rivest-Vuillemin Conjecture for Fourteen Variables." arXiv preprint arXiv:1701.02374 (2017)
- **Guangmo, Tong**, Weili Wu, and Ding-Zhu Du. "Coupon Advertising in Online Social Systems: Algorithms and Sampling Techniques." **Under review**.
- **Guangmo, Tong**, Weili Wu, and Ding-Zhu Du. "Target Friending in Online Social Networks: An Algorithmic Approach" **Under review**.
- **Guangmo, Tong**, Weili Wu, and Ding-Zhu Du. "Distributed Rumor Blocking in Social Networks: A Game Theoretical Analysis" **Under review**.
- Weili Wu, **Guangmo, Tong**, and Ding-Zhu Du. "On Non-Integer Submodular Set Cover Problem", *Optimization Methods and Applications*, Springer, in press.

REFERENCES

Dr. Ding-Zhu Du, Professor of Computer Science, The University of Texas at Dallas

Relation with applicant: Ph.D. advisor.

Mail: 800 W. Campbell Road; MS EC31, Richardson, TX 75080 U.S.A.

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Phone: (972) 883-6615

Dr. Panos M. Pardalos, Professor of Industrial and Systems Engineering, University of Florida

Relation with applicant: collaborator on Social Network Analysis.

Mail: 303 Weil Hall, PO Box 116595, Gainesville, FL 32611- 6595 U.S.A.

Email: pardalos@ufl.edu

Phone: (352) 392-1464

Dr. Jie Wang, Professor of Computer Science, University of Massachusetts Lowell

Relation with applicant: collaborator on Social Network Analysis.

Mail: Olsen Hall 201, North Campus, University of Massachusetts Lowell, Lowell, MA 01854

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***Notes:**

Letters of references can be sent immediately from the dossier service of Interfolio at

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Please feel free to contact me at guangmo.tong@utdallas.edu to schedule a delivery of my referral letters.

Research and teaching, truth and love.

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