

Ding, Jiaxin

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Research Interest

Spatio-temporal Data Mining and Privacy, Reinforcement Learning, and Internet of Things.

Education

Stony Brook University Stony Brook, NY
Ph.D. in Computer Science September 2012 – December 2018

Peking University Beijing, China
B.S. in Electronics Engineering and Computer Science September 2008 – June 2012
B.A. in Economics(double major) September 2009 – June 2012

Research Experience

Assistant Professor, John Hopcroft Center for Computer Science, Shanghai Jiao Tong University
December 2019 – Present

Postdoc Researcher, Computer Science Department, University of California, Davis
Worked with Prof. Xin Liu January 2019 – December 2019

Research Assistant, Computer Science Department, Stony Brook University
Advisor: Prof. Jie Gao February 2013 – December 2018

Publications

1. Abhirup Ghosh^{*}, **Jiaxin Ding**^{*}, Rik Sarkar, Jie Gao, Differentially Private Range Counting in Planar Graphs for Spatial Sensing, *Proceedings of the 39th Annual IEEE International Conference on Computer Communications (INFOCOM'20)*, July, 2020. (* indicates equal contribution) (acceptance rate: 19.8%, 268/1354)
2. Yongshuai Liu, **Jiaxin Ding**, Xin Liu, IPO: Interior-point Policy Optimization under Constraints, *the 34th AAAI Conference on Artificial Intelligence (AAAI'20)*, February, 2020. (acceptance rate: 20.6%, 1591/7737)
3. Boris Aronov, Alon Efrat, Ming Li, Jie Gao, Joseph S. B. Mitchell, Valentin Polishchuk, Boyang Wang, Hanyu Quan, **Jiaxin Ding**, Are Friends of My Friends Too Social? Limitations of Location Privacy in a Socially-Connected World, *Proceedings of the 18th ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc 2018)*, June, 2018. (acceptance rate: 16.9%, 30/178)
4. **Jiaxin Ding**, Chien-chun Ni, Jie Gao, Fighting Statistic Re-identification in Human Trajectory Publication, *Proceedings of the 25th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL 2017)*, pages 82:1–82:4, November, 2017. (acceptance rate: 41%, 73/178)

5. **Jiixin Ding**, Chien-chun Ni, Mengyu Zhou, Jie Gao, MinHash Hierarchy for Privacy Preserving Trajectory Sensing and Query, *Proceedings of the 16th ACM/IEEE International Conference on Information Processing in Sensor Networks (IPSN'17)*, pages 17–28, April, 2017. (acceptance rate: 18%, 19/104)
6. Su Jia, Xin Jin, Golnaz Ghasemiefteh, **Jiixin Ding**, Jie Gao, Competitive Analysis for Online Scheduling in Software-Defined Optical WAN, *Proceedings of the 36th Annual IEEE International Conference on Computer Communications (INFOCOM'17)*, pages 1–9, May, 2017. (acceptance rate: 20.9%, 292/1395)
7. **Jiixin Ding**, Jie Gao, Hui Xiong, Understanding and Modelling Information Dissemination Patterns in Vehicle-to-Vehicle Networks, *Proceedings of the 23rd ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL 2015)*, pages 41:1–41:10, November, 2015. (acceptance rate: 18%, 38/216)
8. Xiaotian Yin , Chien-Chun Ni , **Jiixin Ding** , Wei Han , Dengpan Zhou, Jie Gao, Xianfeng Gu, Decentralized Human Trajectories Tracking Using Hodge Decomposition in Sensor Networks, *Proceedings of the 23rd ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL 2015)*, pages 54:1–54:4, November, 2015. (acceptance rate: 36%, 79/216)

Awards

Travel Awards

- Intensive Research Program in Discrete, Combinatorial and Computational Geometry, Barcelona, Spain April 2018
- ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems, Redondo Beach, CA November 2017
- ACM/IEEE International Conference on Information Processing in Sensor Networks, Pittsburgh, PA April 2017
- Symposium on Computational Geometry, Boston, MA June 2016
- ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems, Bellevue, WA November 2015

Fellowship

- Stony Brook University, Computer Science Fellowship 2012

Presentations

1. “Spatio-Temporal Data Mining and Privacy Protection”, invited talk, John Hopcroft Center for Computer Science, Shanghai Jiaotong University, October 29th, 2018
2. “Spatio-Temporal Data Mining and Privacy Protection”, invited talk, Institute for Interdisciplinary Information Sciences, Tsinghua University, October 25th, 2018
3. “Spatio-Temporal Data Mining and Privacy Protection”, invited talk, Forums on Frontier Computing, Center on Frontiers of Computing Studies, Peking University, October 20th, 2018
4. “Fighting Statistic Re-identification in Human Trajectory Publication”, ACM SIGSPATIAL 2017, Redondo Beach, CA, November, 2017

5. “MinHash Hierarchy for Privacy Preserving Trajectory Sensing and Query”, ACM/IEEE IPSN 2017, Pittsburgh, PA, April , 2017
6. “MinHash Signature Hierarchy for Trajectory Sensing and Query”, FWCG 2016, New York, NY, October, 2016
7. “Understanding and Modelling Information Dissemination Patterns in Vehicle-to-Vehicle Networks”, ACM SIGSPATIAL 2015, Bellevue, WA, November, 2015
8. “Trajectory Mining, Representation and Privacy Protection”, ACM SIGSPATIAL 2015, Bellevue, WA, November, 2015

Professional Activities

TPC member for Conferences

- International Conference on Distributed Computing in Sensor Systems (DCOSS 2020)
- ACM/IEEE International Conference on Internet of Things Design and Implementation (IOTDI 2019)

Reviewer for Conferences

- Symposium on Computational Geometry (SoCG 18)
- IEEE Communications Society (INFOCOM 15, 16, 17, 18, 19)
- ACM International Symposium on Mobile Ad Hoc Networking and Computing (Mobihoc 16, 17, 18, 19)
- ACM/IEEE International Conference on Information Processing in Sensor Networks (IPSN 15, 16, 17)