Ting Li

Assistant Professor in Computer Science
Oxford College of Emory University
801 Emory St, Oxford, GA, 30054
Email: tli41@emory.edu; Phone: 919-308-3902

EDUCATION

Ph.D. University of North Carolina at Charlotte, Charlotte, North Carolina 2014-2019

Computer Science | Advisor: Yu Wang (IEEE Fellow) | GPA: 3.9/4

Dissertation: Scalable Privacy-Preserving Participant Selection with

Appropriate Incentive in Mobile Crowd Sensing

B.Eng. Xidian University, Xi'an, China

Information Engineering

GPA: 82/100

2008-2012

COURSE TAUGHT AT OXFORD COLLEGE

CS 170Q Introduction to Computer Science I 2 SECTIONS PER SEMESTER FROM F'19 TO S'23 CS 171 Introduction to Computer Science II F'19, S'20, SU'21, F'21, F'23, S'25 CS 253 Data Structure and Algorithms S'21, S'22, S'23, SU'23, S'25 DSC 101Q Beauty of Algorithms F'20, F'23 CS 297RE Directed Study F'20, S'21, S'22, S'23, F'23, S'25

Semesters	CS 170Q	CS 171	CS 253	DSC 101Q	MLP 101	CS 297RE	Total credits
Fall 2019	2	1					11
Spring 2020	2	1					11
Fall 2020	2			1		1	12
Spring 2021	2		1			1	12
Summer 2021		1					3
Fall 2021	2	1			1		12
Spring 2022	2		1		1	1	13
Fall 2022	Parental leave						
Spring 2023	2		1			2	13
Summer 2023			1				3
Fall 2023		1		1		2	8
Spring 2024	4th year teaching leave						
Fall 2024	Parental leave						
Spring 2025		1	1			3	9

Table 1: The courses I taught at Oxford since Fall 2019. The numbers in the table represent the number of sections. For CS 297RE, the numbers means the number of different topics I worked with students.

Semesters	SORS	SURE	Presented at
Summer 2020		1	
Summer 2021	2		SORS Symposium 2021 and GURC 2021
Summer 2023		1	IPCCC 2023 and ICNC 2024
Summer 2025	1		[ongoing project]

Table 2: Summer research experience/courses since 2019 Fall.

OTHER TEACHING EXPERIENCE

APRIL 2023	Emory University Participant: Emory College Online's Continuous Improvement Process Training Engaged in a critical self-review of their course Attended one consultation with an Emory College instructional designer for 2 hours Implemented a plan for course revisions and improvements after a multi-step review process
MARCH '22 March '20, '21	Online Computer Science Education Conference (SIGCSE) Participant: The ACM Technical Symposium on Computer Science Education (SIGCSE)
MAR 2021	Emory University Participant: March cohort of Emory College Online Teaching Strategies
June 2020	Oxford College at Emory University Participant: Oxford College Online Teaching Training
Aug 2017 May 2019	University of North Carolina at Charlotte Adjunct Lecturer: ITSC 2175 Logic and Algorithm, Fall 2017 and Spring/Fall 2018 Teaching Assistant: ITSC 2175 Logic and Algorithm Online section, Summer 2018
JAN 2017 DEC 2017	University of North Carolina at Charlotte Participant: Graduate Teaching Seminar, Spring 2017 and Fall 2017
Ост 2017	University of North Carolina at Charlotte Participant: Quality Matters Workshop by the Center for Teaching and Learning
AUG 2014 MAY 2016	University of North Carolina at Charlotte Teaching Assistant: ITCS 6168 Wireless Network and Communication, Fall 2015; ITCS 6166 Computer Network and Communication, Spring 2016
JUL 2012 JUL 2014	Xidian University, China Counselor

RESEARCH INTERESTS

Privacy and Security, Mobile Crowd Sensing, Wireless Networking and Communication, Edge Computing, Bike sharing

Journal Publications - Peer reviewed

- 1. "Large-Scale Mobile Crowd Sensing: Participant Selection, Incentive, Privacy and Beyond", Under preparation.
- 2. Youqi Li, Fan Li, Liehuang Zhu, Huijie Chen, **Ting Li**, and Yu Wang, "Fair Incentive Mechanism with Imperfect Quality in Privacy Preserving Crowdsensing", IEEE Internet of Things Journal, February 2022.
- 3. **Ting Li**, Zhijin Qiu, Lijuan Cao, Dazhao Cheng, Weichao Wang, Xinghua Shi, and Yu Wang, "Privacy-Preserving Participant Grouping for Mobile Social Sensing over Edge Clouds", IEEE Transactions on Network Science and Engineering, April 2021.
- 4. Yufeng Zhan, Yuanqing Xia, Jiang Zhang, Ting Li, Yu Wang, "An Incentive MechanismDesign for Mobile Crowdsensing with Demand Uncertainties", Information Sciences, April 2020.
- 5. Ting Li, Taeho Jung, Zhijin Qiu, Hanshang Li, Lijuan Cao, and Yu Wang, "Scalable Privacy-

Preserving Participant Selection for Mobile Crowdsensing Systems: Participant Grouping and Secure Group Bidding", IEEE Transactions on Network Science and Engineering, April 2020.

- 6. A B M Mohaimenur Rahman, **Ting Li** and Yu Wang, "Recent Advances in Indoor Localization via VisibleLights: A Survey", Sensors, March 2020.
- 7. Wei Jing, Chao Liu, **Ting Li**, A B M Mohaimenur Rahman, Yu Wang and Zhongwen Guo "Path Planning and Navigation of Autonomous Sailboats and Vessels: A Survey", Journal of Ocean University of China, 2019.
- 8. Hanshang Li, **Ting Li**, Weichao Wang, Yu Wang, "Dynamic Participant Selection for Large-Scale Mobile Crowd Sensing", IEEE Transactions on Mobile Computing, December 2019.
- 9. Yue Wu, Fan Li, Liran Ma, Yadong Xie, **Ting Li**, Yu Wang, "A Context-Aware Multi-Armed Bandit Incentive Mechanism for Mobile Crowd Sensing Systems", IEEE Internet of Things Journal, October 2019.
- 10. Yufeng Zhan, Yuanqing Xia, Jiang Zhang, **Ting Li**, Yu Wang, "Crowdsensing game with demand uncertainties: A deep reinforcement learning approach", arXiv preprint, 2018
- 11. Zhijin Qiu, Zhongwen Guo, Yu Wang, Chao Liu and **Ting Li**, "Reconstruction Model of Ocean Observing Complex Virtual Instrument", Journal of Ocean University of China, 2018. to appear.
- 12. Yu Wang, Hanshang Li, and **Ting Li**,"Participant Selection for Data Collection through Device-to-Device Communications in Mobile Sensing", Personal and Ubiquitous Computing, February 2017.
- 13. Fan Li, Chenfei Tian, **Ting Li**, and Yu Wang, "Energy Efficient Social Routing Framework for Mobile Social Sensing Networks", Tsinghua Science and Technology, Volume: 21, Issue: 4, Pages: 363-373, August 2016.

CONFERENCE PUBLICATIONS AND PRESENTATION - PEER REVIEWED

- 1. Victor Li*, Carson Lam*, **Ting Li**, "Gumbel-Based Active Sparse Mobile Crowd Sensing with Time Series Transformer", in Proceedings of 44th IEEE International Performance Computing and Communications Conference (IPCCC 2025), Austin, Texas, November 2025
- 2. **Ting Li**, Dan Han, A B M Mohaimenur Rahman, "Matching or Not: Stochastic Perfect Matching of Task Assignment in Mobile Crowd Sensing", in proceedings of the The 11th International Conference on Big Data Computing and Communications (Bigcom 15), Muroran, Hokkaido, Japan, June 2025
- 3. Helen Jin*¹, **Ting Li**, "Participation Selection in Mobile Crowd Sensing with Diversity Ensures", in proceedings of the 2024 International Conference on Computing, Networking and Communications (ICNC), Big Island, Hawaii, February 2024.
- 4. **Ting Li** "Saving More and Completing More with Data Mining in Mobile Crowd Sensing", at the 2021 CRA-WP Grad Cohort for Women Workshop, April 2021
- 5. **Ting Li**, Zhijin Qiu, Lijuan Cao, Zhongwen Guo and, Fan Li, and Yu Wang, "Privacy-Preserving Participant Grouping in Mobile Crowdsensing over Hierarchical Edge Clouds", in Proceedings of 37th IEEE International Performance Computing and Communications Conference (IPCCC 2018),Orlando, Florida, November 2018
- 6. Hanshang Li, Ting Li, Fan Li, and Yu Wang, "Cumulative Participant Selection with Switch Cost in Large-Scale Mobile Crowd Sensing", in Proceedings of 27th IEEE In-

¹ Victor Li, Carson Lam, and Helen Jin were undergraduate students under the supervision of Dr. Li

- ternational Conference on Computer Communications and Networks (ICCCN 2018), Hanzhou, China, July 2018
- Hanshang Li, Ting Li, and Yu Wang, "Multi-Expertise Aware Participant Selection in Mobile Crowd Sensing via Online Learning", in Proceedings of 15th IEEE International Conference on Mobile Ad Hoc and Sensor Systems (MASS 2018), Chengdu, China, October 2018
- 8. Ting Li, Taeho Jung, Hanshang Li, Lijuan Cao, Weichao Wang, Xiang-Yang Li, and Yu Wang, "Scalable Privacy-Preserving Participant Selection in Mobile Crowd Sensing", in Proceedings of IEEE 15th International Conference on Pervasive Computing and Communications (PerCom 2017), Kona, Big Island, Hawaii, March 2017
- 9. Hanshang Li, **Ting Li**, Xinghua Shi, and Yu Wang,"Data Collection through Device-to-Device Communications for Mobile Big Data Sensing", in Proceedings of 1st Workshop of Mission-Critical Big Data Analytics (MCBDA 2016), Prairie View, TX, May 2016.
- 10. Hanshang Li, **Ting Li**, Fan Li, Weichao Wang, and Yu Wang,"Enhancing Participant Selection through Caching in Mobile Crowd Sensing", in Proceedings of IEEE/ACM International Symposium on Quality of Service (IWQoS 2016), Beijing, China, June 2016
- 11. Hanshang Li, Ting Li, and Yu Wang, "Dynamic Participant Recruitment of Mobile Crowd Sensing for Heterogeneous Sensing Tasks", in Proceedings of 12th IEEE International Conference on Mobile Ad hoc and Sensor Systems (MASS 2015), Dallas, Texas, October 2015

POSTER PRESENTATION

Note the authors below in **bold** are **undergraduate students** at Oxford College of Emory University, who did research under the supervision of Dr. Li.

- 1. "Patched Forecasting with Gumbel-Based Selector for Sparse Mobile Crowd Sensing", Victor Li*, Carson Lam*, Ting Li,will present at IPCCC 2025.
- "Online Data Inference with Transformer Model in Mobile Crowd Sensing", Victor Li*, Steven Chen*, Ting Li, presented at the Oxford Research Scholars program (ORS) Symposium 2025.
- 3. "A General Approach to Website Question Answering with Large Language Models", Lance Ding*, Andy Wu*, Kei Nie*, Chang Liu*, presented at the IEEE SoutheastCon 2024.
- 4. "Redesigning Mobile Crowd Sensing's Selection Logic to Ensure Participant's Diversity", Helen Jin*, Yijun Liu*, Ting Li, presented at the 42rd IEEE International Performance Computing and Communications Conference (IPCCC 2023)
- 5. "Stable Matching Between Emory Campuses", **Zachary Hammond*** and Ting Li, presented at the Oxford Research Scholars program (ORS) Symposium 2023.
- 6. "Redesigning MCS (Mobile Crowd Sensing)'s Selection Logic to Ensure Equality", **Helen Jin***, **Akhil Arularasu***, and Ting Li, presented at the Oxford Research Scholars program (ORS) Symposium 2023.
- 7. "Evaluating the Current Bike Station Placements At Oxford by Analyzing Student Flow Spatially and Temporally", **Jessica Yoon*** and Ting Li, presented at the Summer Oxford Research Scholars program Symposium(SORS) 2021 and the Georgia Undergraduate Research Conference (GURC) 2021.
- 8. "One-to-One and One-to-Multiple User-Task Mapping in Task-Abundant Mobile Crowd Sensing", Yijun Liu* and Ting Li, presented at the Summer Oxford Research Scholars program Symposium(SORS) 2021 and the Georgia Undergraduate Research Conference (GURC) 2021.

- 9. "Privacy-Preserving Participant Grouping for Mobile Crowdsensing over Edge Clouds", Ting Li and Yu Wang, presented at the 2021 Grad Cohort for Women Workshop.
- 10. "Get More Data with Less Participation in Mobile Crowd Sensing", Amen Bedi* and Ting Li, presented at the end of Oxford Research Scholars program (ORS) 2021.
- 11. "Posted Price with Quality Guarantee in Sparce Mobile Crowdsensing during Certain Natural Phenomenon", **Dusty Dang*** and Ting Li, presented at the end of Summer Undergraduate Research Experience program (SURE) 2020.
- 12. "Scalable Privacy-Preserving Participant Selection in Mobile Crowd Sensing", Ting Li, Hanshang Li, and Yu Wang, 17th Annual Graduate Research Symposium, UNC Charlotte, March 2017

GRANTS

- 1. MIDAS COVID-19 Modeling Urgent Grant Program, "Epidemic Modeling on the Network", Proposal Submitted on July 25th, 2020, Pl: Dan Han, Co-Pls: Rajib Paul, Ting Li. (Not Funded)
- 2. Teaching grant for 2021 Mara H. Wasburn Early Engineering Educator Grant. 2021. (Not Funded)

HONORS AND AWARDS

Travel award for attending 2023 CRA-WP Career Mentoring Workshop	2023
Travel award for attending CRA-W Graduate Cohort Workshop Travel Award	2021, 2020
NSF Student Travel Grant for attending IEEE ICC 2018	2018
UNC Charlotte Graduate Assistant Support Plan (GASP)	2014-2019
Student travel ward for attending CRA-W Graduate Cohort Workshop	2015, 2016
Outstanding Scholarship of Xidian University	2019-2011

SERVICES AT OXFORD

Сомміттев	The Organization and Procedures Committee (OPC)	Since 2022
Rep'	Oxford ECAS Senate Representative	Spring 2024
Member	The Center for Healthful Living Academic Oversight Committee	2020-2021
	Chinese VAP Search Committee	Spring 2025
	CS Faculty Search Committee	2021-2023
	Oxford Studies	Since 2023
	Oxford Honor Council	2023-2024
	Student Honor Thesis Committee(3 Students)	Spring 2022

PROFESSIONAL SERVICE

TPC MEMBER	IEEE Int'l Conf on Ad-hoc and Smart Sys. (MASS)	since 2023
	IEEE SoutheastCon	since 2021
	IEEE Int'l Perf. Comp&Commun Conf. (IPCCC)	since 2018
	IEEE Int'l Conf on Comp. Commun. & Net. (ICCCN)	since 2018
	Int'l Conf on Big Data Comp&Commun (BigCom)	2019
SESSION CHAIR	IEEE IPCCC	2021
POSTER SESSION CHAIR	IEEE IPCCC	2025
GENERAL CHAIR	EAI Qshine	2025
JUDGE	Undergraduate Research (CUR) Award at SIGCSE	2022
PROGRAM COMMITTEE	Tech for Women Track at Grace Hopper Conference	2021
GUEST EDITOR	MDPI Special issues on MCS & Its App. of Elec.	
	MDPI Special Issue on Distributed Alg. for Wireless	
	Net. and Mob. Edge Comp.	
Membership	IEEE	
	ACM	
Membership		

PROFESSIONAL SERVICE

Conference Reviewer	· · · · · · · · · · · · · · · · · · ·	since 2020
	IEEE Int'l Perf. Comp. & Commun. Conf (IPCCC)	since 2018
	IEEE Int'l Conf on Commun. (ICC)	2018
	IEEE Int'l Conf on Mobile Ad-hoc & Sensor Net. (MSN)	2015
	Int'l Conf on Wireless Algo., Sys, & App. (WASA)	2017
	Int'l Conf on Big Data Comp. & Commun. (BigCom)	2017
Journal Reviewer	ACM Transactions on Sensor Networks	
	Sensors	
	Intelligent and Converged Networks	
	IEEE Transactions on Mobile Computing	
	IEEE Transactions on Communications	
	IEEE Transactions on Computational Social Systems	
	IEEE Transactions on Vehicular Technology	
	IEEE Internet of Things	
	IEEE Communication Letters	
	IEEE Wireless Communications Magazine	
	IEEE Open Journal of Intelligent Transportation Systems	
	Transactions on Big Data	
	Transactions on Sustainable Computing	
	IEEE Transactions on Network Science and Engineering	
	Concurrency and Computation: Practice and Experience	
	KSII Transactions on Internet & Information Systems	
	Vehicular Communications	
	Optical and Quantum Electronics	
	Intelligent and Converged Networks	
	Int'l Journal of Distributed Sensor Networks	
	Int'l Journal of Ad Hoc & Ubiquitous Computing	
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