

Chenxi Qiu | Curriculum Vitae

Discovery Park F228, Denton, Texas 76207

🌐 <https://chenxiunt.github.io/>

✉ chenxi.qiu@unt.edu

☎ (323) 337-2758

EDUCATION

Clemson University

Ph.D in Computer Engineering

Clemson, SC

Dec 2015

Xidian University

B.E. in Telecommunication Engineering

Xian, P. R. China

May 2009

WORKING EXPERIENCE

Assistant Professor

July 2021 – Present

Department of Computer Science and Engineering, University of North Texas, Denton, U.S

Assistant Professor

Sept 2018 – June 2021

Department of Computer Science, Rowan University, Glassboro, U.S

Postdoc Scholar

Jan 2016 – Aug 2018

College of Information Science and Technology, Pennsylvania State University

Research Assistant

Aug 2010 – Dec 2015

Department of Electrical and Computer Engineering, Clemson University

GRANTS AWARDED

PI, "SaTC: CORE: Small: Customizable Geo-Obfuscation to Protect Users' Location Privacy in Mobile Crowdsourcing", National Science Foundation, 07/01/2023 – 06/30/2026, **\$344,997**

PI, "Collaborative Research: SaTC: CORE: Small: Privacy Protection of Vehicles Location in Spatial Crowdsourcing under Realistic Adversarial Models", National Science Foundation, 01/01/2021 – 12/31/2023, **\$243,107**

Co-PI, "Learning Empowered Distributed Sensing", Army Research Lab/Northeastern University, 03/16/2023 – 03/15/2024, **\$2,069,324**

Co-PI, "Power Grid SCADA System Security Solution Evaluation", Protect Our Power, 08/01/2020 – 01/31/2021, **\$12,500**

PUBLICATIONS

Journal Publications

[19] A. Sarker, H. Shen, **C. Qiu**, and H. Uehara, and K. Zhang, Brake Signal-based Driver's Location Tracking in Usage-based Auto Insurance Programs, *IEEE Internet of Things Journal*, published in January 2023 [Impact factor = 9.936].

[18] N. Wang, J Li, S. Ho, and **C. Qiu**, Distributed machine learning for energy trading in electric distribution system of the future, *The Electricity Journal*, published in January 2021 [Impact factor = 2.05].

[17] B. Wu, Y. Qi, **C. Qiu**, and Y. Tang, Wideband Anti-Jamming Based on Free Space Optical Communication and Photonic Signal Processing, *Sensors*, published in February 2021 [Impact factor = 3.576].

- [16] B. Wu, Y. Tang, **C. Qiu**, Y. Huang, C. Huang, and P. Prucnal, Secure Analysis of Optical Steganography With Spectral Signature Measurement, *IEEE Photonics Technology Letters*, published in July 2021 [Impact factor = 2.468].
- [15] L. Yan, H. Shen, Haiying, J. Zhao, C. Xu, F. Luo, **C. Qiu**, Z. Zhang, and S. Mahmud, CatCharger: Deploying In-motion Wireless Chargers in a Metropolitan Road Network via Categorization and Clustering of Vehicle Traffic, *IEEE Internet of Things Journal*, published in October 2021 [Impact factor = 9.936].
- [14] H. Shen and **C. Qiu**, Scheduling Inter-Datacenter Video Flows for Cost Efficiency, *IEEE Transactions on Services Computing (TSC)*, published in January 2021 [Impact factor = 8.216].
- [13] **C. Qiu**, A. C. Squicciarini, C. Pang, N. Wang, and B. Wu, Location Privacy Protection in Vehicle-Based Spatial Crowdsourcing via Geo-Indistinguishability, *IEEE/ACM Transactions on Mobile Computing (TMC)*, accepted on October 29, 2020 [Impact factor = 5.112].
- [12] A. Sarker, **C. Qiu**, and H. Shen, Connectivity Maintenance for Next-Generation Decentralized Vehicle Platoon Networks, *IEEE/ACM Transactions on Networking (TON)*, Vol. 28, no. 4, pp. 1449 - 1462, 2020 [Impact factor = 2.186].
- [11] **C. Qiu** and H. Shen, Dynamic Demand Prediction and Allocation in Cloud Service Brokerage, *IEEE Transactions on Cloud Computing (TCC)*, accepted on April 20, 2019 [Impact factor = 4.714].
- [10] H. Shen and **C. Qiu**, Scheduling Inter-Datacenter Video Flows for Cost Efficiency, *IEEE Transactions on Service Computing (TSC)*, accepted on May 29, 2018 [Impact factor = 5.823].
- [9] **C. Qiu** and H. Shen, Towards Green Wireless Networking: Fading-Resistant Time Constraint Broadcasts Using Cooperative Communication, *IEEE Transactions on Network Science and Engineering (TNSE)*, Vol. 6, no. 3, pp. 548 - 561, 2019 [Impact factor = 5.213].
- [8] **C. Qiu**, H. Shen, and Liuhua Chen, Towards Green Cloud Computing: Demand Allocation and Pricing Policies for Cloud Service Brokerage, *IEEE Transactions on Big Data (TBD)*, Vol. 5, no. 2, pp. 238 - 251, 2018 [Impact factor = 5.67].
- [7] **C. Qiu**, H. Shen, and K. Chen, An Energy-Efficient and Distributed Cooperation Mechanism For k-Coverage Hole Detection And Healing in WSNs, *IEEE Transactions on Mobile Computing (TMC)*, Vol. 17, no. 6, pp. 1247-1259, 2017 [Impact factor = 5.112].
- [6] K. Dey, L. Yan, X. Wang, Y. Wang, H. Shen, M. Chowdhury, L. Yu, **C. Qiu**, V. Soundararaj, A Review of Communication, Driver Characteristics and Controls Aspects of Cooperative Adaptive Cruise Control, *IEEE Transactions on Intelligent Transportation Systems (TITS)*, Vol. 17, no. 2, pp. 491-509, 2016 [Impact factor = 6.319] [**George N. Saridis Best Transactions Paper Award**].
- [5] **C. Qiu**, H. Shen, L. Yu, S. Soltani, Low-Latency Multi-flow Cooperative Broadcast in Fading Wireless Networks, *IEEE Transactions on Computers (TC)*, Vol. 65, no. 6, pp. 1802 - 1815, 2016 [Impact factor = 3.131].
- [4] **C. Qiu**, H. Shen, S. Soltani, K. Sapra, H. Jiang and J. Hallstrom, CEDAR: A Low-latency and Distributed Strategy for Packet Recovery in Wireless Network, *IEEE/ACM Transactions on Networking (TON)*, Vol. 23, no. 5, pp. 1514-1527, 2015 [Impact factor = 2.186].
- [3] H. Shen, Z. Li, **C. Qiu**, A Distributed Three-hop Routing Protocol to Increase the Capacity of Hybrid Wireless Networks, *IEEE Transactions on Mobile Computing (TMC)*, Vol. 14, no. 10, pp. 1975-1991, 2015 [Impact factor = 5.112].
- [2] **C. Qiu** and H. Shen, A Delaunay-based Coordinate-free Mechanism for Full Coverage in Wireless Sensor Networks, *IEEE Transactions on Parallel and Distributed Systems (TPDS)*, Vol. 25, no. 4, pp. 828-839, 2014 [Impact factor = 2.6].
- [1] H. Shen, Z. Li, L. Yu and **C. Qiu**, Efficient Data Collection for Large-Scale Mobile Monitoring

Applications, *IEEE Transactions on Parallel and Distributed Systems (TPDS)*, Vol. 25, no. 6, pp. 1424-1436, 2014 [Impact factor = 2.6].

International Conference Publications.....

[42] R. Liu and C. Qiu, PAnDA: Rethinking Metric Differential Privacy Optimization at Scale with Anchor-Based Approximation, In *Proc. of The 32nd ACM Conference on Computer and Communications Security (CCS)*, 2025

[41] C. Qiu, R. Liu, P. Pappachan, A. Squicciarini, and X. Xie, Time-Efficient Locally Relevant Geo-Location Privacy Protection, In *Proc. of the 25th Privacy Enhancing Technologies Symposium (PETS)*, 2025

[40] T. Le, S. Yadav, X. Xie, C. Qiu, Y. Huang, and X. Li, EfficientLocNet: High-Performance and Lightweight Radio Source Localization with Multi-Scale Attention, In *Proc. of the 33rd ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (SIGSPATIAL)*, 2025

[39] C. Yu, X. Xie, Y. Huang, and C. Qiu, FUSE-Traffic: Fusion of Unstructured and Structured data for Event-aware Traffic forecasting, In *Proc. of the 33rd ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (SIGSPATIAL)*, 2025

[38] S. Yadav, C. Yu, X. Xie, Y. Huang, and C. Qiu, Protecting Vehicle Location Privacy with Contextually-Driven Synthetic Location Generation, In *Proc. of the 32nd ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (SIGSPATIAL)*, 2024

[37] C. Yu, X. Xie, Y. Huang, and C. Qiu, Harnessing LLMs for Cross-City OD Flow Prediction, In *Proc. of the 32nd ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (SIGSPATIAL)*, 2024

[36] D. Qu, D. Carrillo, S. Dhakal, M. D. Tezerjani, C. Qiu, and Q. Yang Location Privacy Protection and 911 Task Allocation in Vehicle-Based via Differential Privacy, In *Proc. of the IEEE 100th Vehicular Technology Conference (VTC2024-Fall)*, 2024

[35] J. Mitayegiri, S. Dong, C. Qiu, Q. Yang, X. Li, H. Fan, and Y. Huang, Radio Map Estimation (RME) with Deep Progressive Network, In *Proc. of the 7th International Conference on Multimedia Information Processing and Retrieval*, 2024

[34] C. Qiu, Enhancing Scalability of Metric Differential Privacy via Secret Dataset Partitioning and Benders Decomposition, In *Proc. of 33rd International Joint Conference on Artificial Intelligence (IJCAI)*, 2024

[33] C. Qiu, S. Yadav, Y. Ji, and A. Squicciarini, R. Dantu, J. Zhao, C. Xu, Fine-Grained Geo-Obfuscation to Protect Workers' Location Privacy in Time-Sensitive Spatial Crowdsourcing, In *Proc. of 27th International Conference on Extending Database Technology (EDBT)*, 2024

[32] F. Jia, C. Qiu, S. Rajtmajer, and A. Squicciarini, Content Sharing Design for Social Welfare in Networked Disclosure Game, In *Proc. of The 39th Conference on Uncertainty in Artificial Intelligence (UAI)* 2023

[31] P. Pappachan, C. Qiu, A. Squicciarini, and V. Manjunath, User Customizable and Robust Geo-Indistinguishability for Location Privacy, In *Proc. of 26th International Conference on Extending Database Technology (EDBT)* 2023

[30] P. Pappachan, V. Manjunath, C. Qiu, A. Squicciarini, H. Onweller, CORGI: An interactive framework for Customizable and Robust Location Obfuscation, In *Proc. of 39th IEEE International Conference on Data Engineering (Demo)* 2023

[29] C. Qiu, S. Yadav, A. Squicciarini, Q. Yang, F. Song, J. Zhao, and C. Xu, Distributed Data-Sharing Consensus in Cooperative Perception of Autonomous Vehicles, In *Proc. of The 42nd IEEE International Conference on Distributed Computing Systems (ICDCS)* 2022 [acceptance rate 19.9%]

- [28] C. Qiu, L. Yan, A. Squicciarini, J. Zhao, C. Xu, P. Pappachan, TrafficAdaptor: An Adaptive Obfuscation Strategy for Vehicle Location Privacy Against Vehicle Traffic Flow Aware Attacks, In *Proc. of the 32nd ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (SIGSPATIAL)*, 2022
- [27] C. Qiu, A. C. Squicciarini, Z. Li, C. Pang, and L. Yan, Time-Efficient Geo-Obfuscation to Protect Worker Location Privacy over Road Networks in Spatial Crowdsourcing, In *Proc. of The 29th ACM International Conference on Information and Knowledge Management (CIKM)* 2020 [acceptance rate 21.0%]
- [26] A. Sarker, C. Qiu, H. Shen, H. Uehara, and K. Zheng, Brake Data-Based Location Tracking in Usage-Based Automotive Insurance Programs, In *Proc. of The 19th ACM/IEEE Conference on Information Processing in Sensor Networks (IPSN)* 2020
- [25] C. Qiu, A. C. Squicciarini, and S. M. Rajtmajer, Rating Mechanisms for Sustainability of Crowdsourcing Platforms, In *Proc. of the 24th ACM International Conference on Information and Knowledge Management (CIKM)* 2019 [acceptance rate 19.4%]
- [24] C. Qiu and A. C. Squicciarini, Location Privacy Protection in Vehicle-Based Spatial Crowdsourcing via Geo-Indistinguishability, In *Proc. of International Conference on Distributed Computing Systems (ICDCS)* 2019 [acceptance rate 19.6%]
- [23] C. Qiu, A. C. Squicciarini, and B. Hanrahan, Incentivizing Distributive Fairness for Crowdsourcing Workers, In *Proc. of International Conference on Autonomous Agents and Multiagent Systems (AAMAS)* 2019
- [22] C. Qiu and H. Shen, Cloud-based Collision-Aware Energy-Minimization Vehicle Velocity Optimization, In *Proc. of International Conference on Mobile Ad-hoc and Sensor Systems (MASS)* 2018
- [21] C. Qiu, A. C. Squicciarini, D. Khare, B. Carminati, and J. Caverlee, CrowdEval: A Cost-Efficient Strategy to Evaluate Crowdsourced Workers' Reliability, In *Proc. of International Conference on Autonomous Agents and Multiagent Systems (AAMAS)* 2018
- [20] C. Qiu, A. C. Squicciarini, C. Griffin, and P. Umar, Combating Behavioral Deviance via User Behavior Control, In *Proc. of International Conference on Autonomous Agents and Multiagent Systems (AAMAS)* 2018
- [19] L. Yan, H. Shen, Z. Li, A. Sarker, J. A. Stankovic, C. Qiu, J. Zhao, and C. Xu, Employing Opportunistic Charging for Electric Taxicabs to Reduce Idle Time, In *Proc. of ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp)* 2018
- [18] C. Qiu and H. Shen, Fading-Resistant Link Scheduling in Wireless Networks, In *Proc. of the 46th International Conference on Parallel Processing (ICPP)* 2017
- [17] C. Qiu, A. Sarker, and H. Shen, Power Distribution Scheduling for Electric Vehicles in Wireless Power Transfer Systems, In *Proc. of the 14th IEEE International Conference on Sensing, Communication and Networking (SECON)* 2017
- [16] C. Qiu, A. C. Squicciarini, S. M. Rajtmajer, and J. Caverlee, Dynamic Contract Design for Heterogenous Workers in Crowdsourcing for Quality Control, In *Proc. of the 37th IEEE International Conference on Distributed Computing Systems (ICDCS)* 2017
- [15] A. Sarker, C. Qiu, and H. Shen, Quick and Autonomous Platoon Maintenance in Vehicle Dynamics For Distributed Vehicle Platoon Networks, Short paper, In *Proc. of ACM/IEEE International Conference on Internet-of-Things Design and Implementation (IoTDI)* 2017
- [14] L. Yan, H. Shen, J. Zhao, C. Xu, F. Luo, and C. Qiu, CatCharger: Deploying Wireless Charging Lanes in a Metropolitan Road Network through Categorization and Clustering of Vehicle Traffic, In *Proc. of IEEE International Conference on Computer Communications (INFOCOM)* 2017 [acceptance rate: 20.93%]

- [13] **C. Qiu**, H. Shen, A. Sarker, V. Soundararaj, M. Devine, and E. Ford, Towards Green Transportation: Fast Vehicle Velocity Optimization for Fuel Efficiency, In *Proc. of The 8th IEEE International Conference on Cloud Computing Technology and Science (CloudCom)* 2016 **[best paper award]**
- [12] **C. Qiu**, Anna C. Squicciarini, B. Carminati, J. Caverlee and D. R. Khare, CrowdSelect: Increasing Accuracy of Crowdsourcing Tasks through Behavior Prediction and User Selection, In *Proc. of the 21st ACM International Conference on Information and Knowledge Management (CIKM)* 2016, [acceptance rate: 17.6%]
- [11] A. Sarker, **C. Qiu**, H. Shen, A Decentralized Network with Fast and Lightweight Autonomous Channel Selection in Vehicle Platoons for Collision Avoidance, In *Proc. of the The 13th IEEE International Conference on Mobile Ad hoc and Sensor Systems (MASS)* 2016
- [10] A. Sarker, **C. Qiu**, H. Shen, A. Gily, J. Taibery, M. Chowdhury, J. Martinx, M. Devine and A. Rindos, An Efficient Wireless Power Transfer System To Balance the State of Charge of Electric Vehicles, In *Proc. of the 45th International Conference on Parallel Processing (ICPP)* 2016, [acceptance rate: 21.1%]
- [9] **C. Qiu**, and H. Shen, Link Scheduling in Cooperative Communication with SINR-Based Interference, In *Proc. of the 25th International Conference on Computer Communications and Networks (ICCCN)* 2016
- [8] **C. Qiu**, Haiying Shen, and Liuhua Chen, Probabilistic Demand Allocation for Cloud Service Brokerage, In *Proc. of IEEE International Conference on Computer Communications (INFOCOM)* 2016, [acceptance rate: 18.25%]
- [7] **C. Qiu**, Haiying Shen, and Liuhua Chen, Towards Green Cloud Computing: Demand Allocation and Pricing Policies for Cloud Service Brokerage, In *Proc. of 2015 IEEE International Conference on Big Data* 2015, [acceptance rate: 17%]
- [6] **C. Qiu**, H. Shen and K. Chen, An Energy-Efficient and Distributed Cooperation Mechanism For k-Coverage Hole Detection And Healing in WSNs, In *Proc. of the IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS)* 2015
- [5] **C. Qiu**, H. Shen and L. Yu, Energy-Efficient and Delay-Constrained Broadcast in Time-Varying Energy-Demand Graphs, In *Proc. of the 44th International Conference on Parallel Processing (ICPP)* 2015, September 1st - 4th, Beijing, China
- [4] **C. Qiu**, H. Shen and L. Yu, Energy-efficient Cooperative Broadcast in Fading Wireless Networks, In *Proc. of IEEE International Conference on Computer Communications (INFOCOM)* 2014, April 27th - May 2nd, Toronto, Canada [acceptance rate: 19.4%]
- [3] **C. Qiu**, H. Shen, S. Soltani, K. Sapra, H. Jiang and J. Hallstrom, CEDAR: An Optimal and Distributed Strategy for Packet Recovery In Wireless Network, In *Proc. of IEEE International Conference on Computer Communications (INFOCOM)* 2013, April 14-19, Turin, Italy, USA [acceptance rate: 17%]
- [2] **C. Qiu**, L. Yu, H. Shen and S. Soltani, Low-Latency Multi-flow Broadcasts in Fading Wireless Networks, In *Proc. of IEEE INFOCOM-Mini-Conference*, 2013, April 14-19, Turin, Italy, USA
- [1] **C. Qiu** and H. Shen, A Delaunay-based Location-free Mechanism for Full Coverage in Wireless Sensor Networks, In *Proc. of IEEE International Conference on Parallel Processing (ICPP)* 2012, Pittsburgh, PA, September 10-13

Posters.....

- [2] **C. Qiu** and H. Shen, Link Scheduling in Wireless Cooperative Communication Networks, In *Proc. of IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS)* 2015
- [1] **C. Qiu**, H. Shen and K. Chen, An Energy-Efficient and Distributed Cooperation Mechanism For k-Coverage Hole Detection And Healing in WSNs, In *Proc. of the IEEE International Conference on*

AWARDS AND ACHIEVEMENTS

- Outstanding Reviewer Award in the ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (SIGSPATIAL), 2023
- Outstanding Service Award in the ACM/IEEE Conference on Internet of Things Design and Implementation (IoTDI), 2021
- Outstanding Service Award in IEEE International Conference on Mobile Ad hoc and Sensor Systems (MASS), 2019
- George N. Saridis Best Transactions Paper Award in the IEEE Transactions on Intelligent Transportation Systems 2016
- Best Paper Award in IEEE CloudCom, 2016
- NSF Student Travel Grant, IEEE International Conference on Mobile Ad hoc and Sensor Systems (MASS), 2015
- NSF Student Travel Grant, IEEE International Conference on Big Data, 2015
- Harris Outstanding Researcher Award, Department of ECE, Clemson University, 2014
- Top-Grade Scholarship in Graduate School, Xidian University, 2009
- Honorable Mention of Interdisciplinary Contest in Modeling (ICM), 2008

PROFESSIONAL ACTIVITIES

Current Membership.....

IEEE member, ACM member

Publicity chair.....

2022, 2023: The IEEE International Conference on Fog and Edge Computing (ICFEC)

2022: The IEEE International Conference on Computer Communications and Networks (ICCCN)

Poster Co-chair for.....

2019: IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS)

Web Chair for.....

2019: IEEE ACM/IEEE Conference on Internet of Things Design and Implementation (IoTDI)

Session Chair for.....

2024: The International Joint Conference on Artificial Intelligence (IJCAI)

2021: The ACM/IEEE Conference on Internet of Things Design and Implementation (IoTDI)

2019: IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS)

2019: IEEE International Conference on Distributed Computing Systems (ICDCS)

Technical Program Committee Member for.....

2025: IEEE Conference on Computer Communications (INFOCOM)

2024, 2023: ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (SIGSPATIAL)

2024: International Conference on Information and Knowledge Management

2020, 2021: IEEE Wireless Communications and Networking Conference (WCNC)

2020: IEEE International Conference on Fog and Edge Computing (ICFEC)

2019, 2020: IEEE/ACM International Symposium on Cluster, Cloud, and Grid Computing (CCGrid)

Conference Reviewer for.....

2025, 2026: Privacy Enhancing Technologies Symposium (PETS)
2018, 2025, 2026: IEEE Conference on Computer Communications (INFOCOM)
2023, 2024, 2025: ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (SIGSPATIAL)
2024: In Proceedings of 33rd International Joint Conference on Artificial Intelligence (IJCAI)
2024, 2025: International Conference on Information and Knowledge Management (CIKM)
2020, 2021: The IEEE Wireless Communications and Networking Conference (WCNC)
2020: The IEEE International Conference on Fog and Edge Computing (ICFEC)
2019, 2020: IEEE/ACM International Symposium on Cluster, Cloud, and Grid Computing (CCGrid)
2018: International Conference on Software (Softcome)
2017: IEEE International Conference on Computer Communications and Networks (ICCCN)
2016: IARIA INTERNET

Journal Associate Editor for.....

2025: IEEE Transactions on Dependable and Secure Computing (TDSC)

Journal Reviewer for.....

2020, 2024: IEEE Transactions on Network Science and Engineering (TNSE)
2020, 2021, 2022, 2023: IEEE Transactions on Dependable and Secure Computing (TDSC)
2018, 2024: IEEE Transactions on Services Computing (TSC)
2015, 2018, 2021, 2022, 2023: IEEE/ACM Transactions on Networking (ToN)
2014, 2018: IEEE Journal on Selected Areas in Communications (JSAC)
2017, 2021, 2022, 2023, 2024: IEEE Transactions on Mobile Computing (TMC)
2016: IEEE Communications Letters (CL)
2018: IEEE Transactions on Information Forensics & Security (TIFS)
2015, 2018: IEEE Transactions on Vehicular Technology (TVT)
2017: IEEE Transactions on Wireless Communications (TWC)
2017: International Journal of Communication Systems (IJCS)
2015: International Journal of Distributed Sensor Networks (IJDSN)
2017, 2018: International Journal of Cooperative Information Systems (IJCIS)
2017: Computer Networks Journal (CONNET), Computer Networks