Chenxi Qiu | Curriculum Vitae

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EDUCATION

Clemson University   **Clemson, SC**
Ph.D in Computer Engineering   *Dec 2015*

Xidian University   **Xian, P. R. China**
B.E. in Telecommunication Engineering   *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, "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, **$227,107**

Co-PI, "Power Grid SCADA System Security Solution Evaluation", Protect Our Power, 08/01/2020 – 01/31/2021, **Shared credit: $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 Engineerin (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

[30] 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

[29] 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

[28] **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%]

[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. Chowdhuryz, 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 Mobile Ad-hoc and Sensor Systems (MASS) 2015*,

TEACHING EXPERIENCE

Undergraduate level

Principles of Data Structures	*Fall 2018, Spring & Fall 2019, Spring & Fall 2020*
Crypto and Blockchain Essential	*Fall 2020*

Graduate level

Network Security	*Spring 2020*
Advanced TCP/IP Internet Protocols and Technologies	*Spring 2019*
Data Fusion (Online)	*Summer 2018*

High school outreach

GenCyber Summer Camp	*Summer 2019*

AWARDS AND ACHIEVEMENTS

- 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

Publicity chair

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

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

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

Poster Co-chair for

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

Web Chair for

2019: IEEE ACM/IEEE Conference on Internet of Things Design and Implementation (IoTDI) 2021

Session Chair for

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

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

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

Technical Program Committee Member for

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

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: IEEE Conference on Computer Communications (INFOCOM)

2018: International Conference on Software (Softcome)

2017: IEEE International Conference on Computer Communications and Networks (ICCCN)

2016: IARIA INTERNET

Journal Reviewer for

2020: IEEE Transactions on Network Science and Engineering (TNSE)

2020, 2021, 2022: IEEE Transactions on Dependable and Secure Computing (TDSC)

2018: IEEE Transactions on Services Computing (TSC)

2015, 2018, 2021, 2022: IEEE/ACM Transactions on Networking (ToN)

2014, 2018: IEEE Journal on Selected Areas in Communications (JSAC)

2017, 2021, 2022: 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