

# Zhiqian Chen

PH.D., ASSISTANT PROFESSOR

COMPUTER SCIENCE AND ENGINEERING, MISSISSIPPI STATE UNIVERSITY

imczq.com  
zchen@cse.msstate.edu  
662-325-1518  
[\[link to the latest CV\]](#)

---

## EDUCATION

Virginia Tech, Virginia, United States - <i>Ph.D.</i> , Computer Science,	Aug '14 - Jul '20
Peking University, Beijing, China - <i>M.E.</i> , Software Engineering,	Sep '10 - Jul '13
Huazhong University of Sci. & Tech., Wuhan, China	
- <i>B.E. &amp; B.A.</i> , Software Engineering & Japanese Language	Sep '05 - Jul '09

---

## RESEARCH EXPERIENCE

Mississippi State University, MS, U.S. - <i>Assistant Professor</i>	Aug '20 - present
Toyota Research Institute North America, MI, U.S. - <i>Research Intern</i>	May '16 - Aug '16
Virginia Tech, VA, U.S. - <i>Research Assistant</i>	Aug '14 - Aug '20

---

## PUBLICATIONS

- 1 Taoran Ji, Nathan self, Kaiqun Fu, **Zhiqian Chen**, Naren Ramakrishnan, and Chang-Tien Lu Dynamic Multi-Context Attention Networks for Citation Forecasting of Scientific Publications *Proceedings of The 35th AAAI Conference on Artificial Intelligence (AAAI)* 2021.
- 2 Subhodip Biswas, Fanglan Chen, **Zhiqian Chen**, Chang-Tien Lu, and Naren Ramakrishnan. "Incorporating do-main knowledge into Memetic Algorithms for solving Spatial Optimization problems". *In Proceedings of the 28th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL)* 2020. ([Best Paper Award](#))
- 3 Fanglan Chen, **Zhiqian Chen**, Subhodip Biswas, Lei Shuo, Chang-Tien Lu, and Naren Ramakrishnan. "Graph convolutional networks with Kalman filtering for traffic prediction". *In Proceedings of the 28th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL)* 2020.
- 4 Jianfeng He, Xuchao Zhang, Shuo Lei, **Zhiqian Chen**, Fanglan Chen, Abdulaziz Alhamadani, Bei Xiao, and Chang-Tien Lu. Towards More Accurate Uncertainty Estimation In Text Classification. *In Proceedings of the 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP)* 2020.
- 5 Ying Zhang, Xingfeng He, **Zhiqian Chen**, Qiang Bai, Charles A.Roberts, Debasish Banerjee, Tomoya Matsunaga, Yifei Mo, Chen Ling. "Unsupervised Discovery of Solid-State Lithium Ion Conductors". **Nature Communications** (IF: 11.880), 2019. [\[DOI\]](#) [Top 50 Chemistry and Materials Sciences Articles in Nature Communications. ([Top 50 Collection](#))]
- 6 Zhao Ding, **Zhiqian Chen**, Leon Shaw, Tianyi Ma, Wenhui Ma, Chang-Tien Lu. "Predicting the Hydrogen Release Ability of  $LiBH_4$ -based Mixtures by Ensemble Machine Learning". **Energy Storage Materials**. [\[DOI\]](#) (IF: 15.97)
- 7 Subhodip Biswas, Fanglan Chen, Andreea Sistrunk, Nathan Self, **Zhiqian Chen**, Chang-Tien Lu, Naren Ramakrishnan, "Geospatial Clustering for Balanced and Proximal Schools", *Proceedings of the Tenth AAAI Symposium on Educational Advances in Artificial Intelligence (AAAI-EAAI)*, New York, NY, February 8-9, 2020. [\[DOI\]](#)
- 8 **Zhiqian Chen**, Gaurav Kolhe, Setareh Rafatirad, Chang-Tien Lu, Sai Manoj Pudukotai Dinakarrao, Houman Homayoun and Liang Zhao. "Estimating the Circuit Deobfuscating Runtime based on Graph Deep Learning". Design, Automation, and Test in Europe (DATE), 2020. [\[DOI\]](#) (acceptance rate: 26%)
- 9 Subhodip Biswas, Fanglan Chen, **Zhiqian Chen**, Andreea Sistrunk, Nathan Self, Kaiqun Fu, Chang-Tien Lu, Naren Ramakrishnan. "REGAL: A Regionalization framework for school boundaries". *Proceeding of the 27th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL)*, Paper ID: 258, Chicago, IL, Nov. 5-8, 2019. [\[DOI\]](#)
- 10 Taoran Ji, **Zhiqian Chen**, Nathan Self, Kaiqun Fu, Chang-Tien Lu, Naren Ramakrishnan. "Patent Citation Dynamics Modeling via Multi-Attention Recurrent Networks". *Proceedings of the 28th International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 2621-2627, Macao, China, Aug. 10-16, 2019. [\[DOI\]](#) (Acceptance rate: 17.8%)
- 11 Zhao Ding, Shaoyuan Li, Yang Zhou, **Zhiqian Chen**, Weijie Yang, Wenhui Ma, Leon Shaw. "LiBH<sub>4</sub> for hydrogen storage - New perspectives". **Nano Materials Science**, 2019. [\[DOI\]](#)
- 12 **Zhiqian Chen**, Feng Chen, Rongjie Lai, Xuchao Zhang, Chang-Tien Lu. "Rational Neural Networks for Approximating Jump Discontinuities of Graph Convolution Operator". *Proceedings of the IEEE International Conference on Data Mining (ICDM)*, pp. 59-68, Singapore, Nov. 17-20, 2018. [\[DOI\]](#) (Acceptance rate: 8.86% Full Paper)

- 13 Kaiqun Fu, **Zhiqian Chen**, Chang-Tien Lu. “StreetNet: Preference Learning with Convolutional Neural Network on Urban Crime Perception”. *Proceeding of the 26th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL)*, Seattle, WA, Nov. 6-9, 2018. [\[DOI\]](#)
- 14 Manu Shukla, **Zhiqian Chen**, Chang-Tien Lu. “DIMPL: A Distributed In-Memory Drone Flight Path Builder System”. *Journal of Big Data*, Springer, July 2018, Vol. 5, No.24. [\[DOI\]](#)
- 15 Xuchao Zhang, Liang Zhao, **Zhiqian Chen**, Chang-Tien Lu. “Distributed Self-Paced Learning in Alternating Direction Method of Multipliers”. *Proceedings of the Twenty-Seventh International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 3148-3154, Stockholm, Sweden, July 13-19, 2018. <https://www.ijcai.org/proceedings/2018/437>, [\[DOI\]](#) (Acceptance rate: 20.46%)
- 16 Bingsheng Wang\*, **Zhiqian Chen\***, Arnold P. Boedihardjo, Chang-Tien Lu. “Virtual Metering: An Efficient Water Disaggregation Algorithm via Non-Intrusive Load Monitoring”. *ACM Transactions on Intelligent Systems and Technology (ACM TIST)*, Vol. 9, Issue 4, Article No. 39, February 2018. [\[DOI\]](#)
- 17 **Zhiqian Chen**, Chih-Wei Wu, Yen-Cheng Lu, Alexander Lerch, Chang-Tien Lu. “Learning to Fuse Music Genres with Generative Adversarial Dual Learning”. *Proceedings of the IEEE International Conference on Data Mining (ICDM)*, pp. 817-822, New Orleans, Louisiana, Nov. 18-21, 2017. [\[DOI\]](#) (Acceptance rate: 19.9%)
- 18 Xuchao Zhang, Liang Zhao, **Zhiqian Chen**, Arnold P. Boedihardjo, Chang-Tien Lu. “Trendi: Tracking Stories in News and Microblogs via Emerging, Evolving and Fading Topics”. *Proceedings of the IEEE International Conference on Big Data (Big Data)*, pp. 1590-1599, Boston, MA, Dec. 11-14, 2017. [\[DOI\]](#)
- 19 Xuchao Zhang, **Zhiqian Chen**, Liang Zhao, Arnold P. Boedihardjo, Chang-Tien Lu. “TRACES: Generating Twitter Stories via Shared Subspace and Temporal Smoothness”. *Proceedings of the IEEE International Conference on Big Data (Big Data)*, pp. 1688-1693, Boston, MA, Dec. 11-14, 2017. [\[DOI\]](#)
- 20 **Zhiqian Chen**, Xuchao Zhang, Arnold P. Boedihardjo, Jing Dai, Chang-Tien Lu. “Multimodal Storytelling via Generative Adversarial Imitation Learning”. *Proceeding of the 26th International Joint Conference on Artificial Intelligence (IJCAI)*, Melbourne, Australia, August 19-25, 2017. [\[DOI\]](#) (Acceptance rate: 26%)
- 21 Xuchao Zhang, **Zhiqian Chen**, Weisheng Zhong, Arnold P. Boedihardjo, Chang-Tien Lu. “Storytelling in heterogeneous Twitter entity network based on hierarchical cluster routing”. *Proceedings of the IEEE International Conference on Big Data (Big Data)*, pp. 1522-1531, Washington, DC, Dec. 5-8, 2016. [\[DOI\]](#)
- 22 Manu Shukla, **Zhiqian Chen**, Chang-Tien Lu. “DIFPL: Distributed drone flight path builder system”. *Proceedings of the 1st International Conference on Geographical Information Systems Theory, Applications and Management (GISTAM)*, Barcelona, Spain, April 28-30, 2015. [\[DOI\]](#) (**Best Student Paper Award**)
- 23 **Zhiqian Chen**, Wenya Feng. “Detecting Impolite Crawler by Using Time Series Analysis”. *Proceedings of 25th IEEE International Conference on Tools with Artificial Intelligence (ICTAI)*, pp. 123-126, Herndon, VA, USA, November 4-6, 2013. [\[DOI\]](#)

---

## AWARDS & PATENT

**Outstanding Contribution Award**, 2016, Toyota Research  
 Best Paper Award at ACM SIGSPATIAL 2020  
 Best Student Paper Award at GISTAM 2015  
 IEEE International Conference on Data Mining travel award 2017, 2018  
 U.S. Patent: [“High-throughput method to predict bulk properties of inorganic materials”](#).  
 (publication # US10773959B2)

---

## REVIEW SERVICE

IEEE Transactions on Knowledge and Data Engineering (**TKDE**) 2019, 2020  
 ACM SIG on Knowledge Discovery and Data Mining (**KDD**) 2020  
 International Conference on Machine Learning (**ICML**) 2021  
 Neural Information Processing Systems (**NeurIPS**) 2019, 2020  
 AAAI conference on Artificial Intelligence (**AAAI**) 2020, 2021  
 ACM Conference on Research and Development in Information Retrieval (**SIGIR**) 2020  
 ACM Conference on Information and Knowledge Management (**CIKM**) 2019