

Book and Book Chapters

- [1] Adnan Mahmood, **Wei Emma Zhang**, Quan Z. Sheng, Sarah Ali Siddiqui, and Abdulwahab Aljubairy. “Trust Management for Software-Defined Heterogeneous Vehicular Ad Hoc Networks”. In: *Security, Privacy and Trust in the IoT Environment*. Ed. by Zaigham Mahmood. Springer, 2019, pp. 203–226. DOI: [10.1007/978-3-030-18075-1_10](https://doi.org/10.1007/978-3-030-18075-1_10). URL: https://doi.org/10.1007/978-3-030-18075-1_10.
- [2] Adnan Mahmood, Bernard Butler, Quan Z. Sheng, **Wei Emma Zhang**, and Brendan Jennings. “Need of Ambient Intelligence for Next-Generation Connected and Autonomous Vehicles”. In: *Guide to Ambient Intelligence in the IoT Environment - Principles, Technologies and Applications*. Ed. by Zaigham Mahmood. Computer Communications and Networks. Springer, 2019, pp. 133–151. DOI: [10.1007/978-3-030-04173-1_6](https://doi.org/10.1007/978-3-030-04173-1_6). URL: https://doi.org/10.1007/978-3-030-04173-1_6.
- [3] **Wei Emma Zhang** and Quan Z. Sheng. *Managing Data From Knowledge Bases: Querying and Extraction*. Springer, 2018. ISBN: 978-3-319-94934-5. DOI: [10.1007/978-3-319-94935-2](https://doi.org/10.1007/978-3-319-94935-2). URL: <https://doi.org/10.1007/978-3-319-94935-2>.
- [4] **Wei Emma Zhang** and Quan Z. Sheng. “Searching the Big Data: Practices and Experiences in Efficiently Querying Knowledge Bases”. In: *Handbook of Big Data Technologies*. Ed. by Albert Y. Zomaya and Sherif Sakr. Springer, 2017, pp. 429–453. DOI: [10.1007/978-3-319-49340-4_13](https://doi.org/10.1007/978-3-319-49340-4_13). URL: https://doi.org/10.1007/978-3-319-49340-4_13.
- [5] Quan Z. Sheng, Jian Yu, **Wei Emma Zhang**, Shuang Wang, Xiaoping Li, and Boualem Bena-tallah. “Designing and Building Context-Aware Services: The ContextServ Project”. In: *Next-Gen Digital Services. A Retrospective and Roadmap for Service Computing of the Future - Essays Dedicated to Michael Papazoglou on the Occasion of His 65th Birthday and His Retirement*. Ed. by Marco Aiello, Athman Bouguettaya, Damian Andrew Tamburri, and Willem-Jan van den Heuvel. Vol. 12521. Lecture Notes in Computer Science. Springer, 2021, pp. 138–152. DOI: [10.1007/978-3-030-73203-5_11](https://doi.org/10.1007/978-3-030-73203-5_11). URL: https://doi.org/10.1007/978-3-030-73203-5_11.

Other Edited Books/Proceedings/Special Issues

- [6] Quan Z. Sheng, Gill Dobbie, Jing Jiang, Xuyun Zhang, **Wei Emma Zhang**, Yannis Manolopoulos, Jia Wu, Wathiq Mansoor, and Congbo Ma, eds. *Advanced Data Mining and Applications - 20th International Conference, ADMA 2024, Sydney, NSW, Australia, December 3-5, 2024, Proceedings, Part I*. Vol. 15387. Lecture Notes in Computer Science. Springer, 2025. ISBN: 978-981-96-0810-2. DOI: [10.1007/978-981-96-0811-9](https://doi.org/10.1007/978-981-96-0811-9). URL: <https://doi.org/10.1007/978-981-96-0811-9>.
- [7] Quan Z. Sheng, Gill Dobbie, Jing Jiang, Xuyun Zhang, **Wei Emma Zhang**, Yannis Manolopoulos, Jia Wu, Wathiq Mansoor, and Congbo Ma, eds. *Advanced Data Mining and Applications - 20th International Conference, ADMA 2024, Sydney, NSW, Australia, December 3-5, 2024, Proceedings, Part II*. Vol. 15388. Lecture Notes in Computer Science. Springer, 2025. ISBN: 978-981-96-0813-3. DOI: [10.1007/978-981-96-0814-0](https://doi.org/10.1007/978-981-96-0814-0). URL: <https://doi.org/10.1007/978-981-96-0814-0>.
- [8] Quan Z. Sheng, Gill Dobbie, Jing Jiang, Xuyun Zhang, **Wei Emma Zhang**, Yannis Manolopoulos, Jia Wu, Wathiq Mansoor, and Congbo Ma, eds. *Advanced Data Mining and Applications - 20th International Conference, ADMA 2024, Sydney, NSW, Australia, December 3-5, 2024, Proceedings, Part III*. Vol. 15389. Lecture Notes in Computer Science. Springer, 2025. ISBN: 978-981-96-0820-1. DOI: [10.1007/978-981-96-0821-8](https://doi.org/10.1007/978-981-96-0821-8). URL: <https://doi.org/10.1007/978-981-96-0821-8>.

- [9] Quan Z. Sheng, Gill Dobbie, Jing Jiang, Xuyun Zhang, **Wei Emma Zhang**, Yannis Manolopoulos, Jia Wu, Wathiq Mansoor, and Congbo Ma, eds. *Advanced Data Mining and Applications - 20th International Conference, ADMA 2024, Sydney, NSW, Australia, December 3-5, 2024, Proceedings, Part IV*. Vol. 15390. Lecture Notes in Computer Science. Springer, 2025. ISBN: 978-981-96-0839-3. DOI: [10.1007/978-981-96-0840-9](https://doi.org/10.1007/978-981-96-0840-9). URL: <https://doi.org/10.1007/978-981-96-0840-9>.
- [10] Quan Z. Sheng, Gill Dobbie, Jing Jiang, Xuyun Zhang, **Wei Emma Zhang**, Yannis Manolopoulos, Jia Wu, Wathiq Mansoor, and Congbo Ma, eds. *Advanced Data Mining and Applications - 20th International Conference, ADMA 2024, Sydney, NSW, Australia, December 3-5, 2024, Proceedings, Part V*. Vol. 15391. Lecture Notes in Computer Science. Springer, 2025. ISBN: 978-981-96-0846-1. DOI: [10.1007/978-981-96-0847-8](https://doi.org/10.1007/978-981-96-0847-8). URL: <https://doi.org/10.1007/978-981-96-0847-8>.
- [11] Quan Z. Sheng, Gill Dobbie, Jing Jiang, Xuyun Zhang, **Wei Emma Zhang**, Yannis Manolopoulos, Jia Wu, Wathiq Mansoor, and Congbo Ma, eds. *Advanced Data Mining and Applications - 20th International Conference, ADMA 2024, Sydney, NSW, Australia, December 3-5, 2024, Proceedings, Part VI*. Vol. 15392. Lecture Notes in Computer Science. Springer, 2025. ISBN: 978-981-96-0849-2. DOI: [10.1007/978-981-96-0850-8](https://doi.org/10.1007/978-981-96-0850-8). URL: <https://doi.org/10.1007/978-981-96-0850-8>.
- [12] Xiao Liu, Michael Mrissa, Liang Zhang, Djamel Benslimane, Aditya Ghose, Zhongjie Wang, Antonio Bucchiarone, **Wei Zhang**, Ying Zou, and Qi Yu, eds. *Service-Oriented Computing - ICSOC 2018 Workshops - ADMS, ASOCA, ISYyCC, CloTS, DDBS, and NLS4IoT, Hangzhou, China, November 12-15, 2018, Revised Selected Papers*. Vol. 11434. Lecture Notes in Computer Science. Springer, 2019. ISBN: 978-3-030-17641-9. DOI: [10.1007/978-3-030-17642-6](https://doi.org/10.1007/978-3-030-17642-6). URL: <https://doi.org/10.1007/978-3-030-17642-6>.
- [13] Amin Beheshti, Mustafa Hashmi, Hai Dong, and **Wei Emma Zhang**, eds. *Service Research and Innovation - 5th and 6th Australasian Symposium, ASSRI 2015 and ASSRI 2017, Sydney, NSW, Australia, November 2-3, 2015, and October 19-20, 2017, Revised Selected Papers*. Vol. 234. Lecture Notes in Business Information Processing. Springer, 2018. ISBN: 978-3-319-76586-0. DOI: [10.1007/978-3-319-76587-7](https://doi.org/10.1007/978-3-319-76587-7). URL: <https://doi.org/10.1007/978-3-319-76587-7>.
- [14] Quan Z. Sheng, **Wei Emma Zhang**, and Elhadi M. Shakshuki. “Practices and applications in ambient and intelligent information systems”. In: *Pers. Ubiquitous Comput.* 21.6 (2017), pp. 1039–1040. DOI: [10.1007/s00779-017-1037-x](https://doi.org/10.1007/s00779-017-1037-x). URL: <https://doi.org/10.1007/s00779-017-1037-x>.
- [15] Gao Cong, Wen-Chih Peng, **Wei Emma Zhang**, Chengliang Li, and Aixin Sun, eds. *Advanced Data Mining and Applications - 13th International Conference, ADMA 2017, Singapore, November 5-6, 2017, Proceedings*. Vol. 10604. Lecture Notes in Computer Science. Springer, 2017. ISBN: 978-3-319-69178-7. DOI: [10.1007/978-3-319-69179-4](https://doi.org/10.1007/978-3-319-69179-4). URL: <https://doi.org/10.1007/978-3-319-69179-4>.

Journal Articles

- [16] Yang Zhang, Yufei Wang, Quan Z. Sheng, Lina Yao, Haihua Chen, Kai Wang, Adnan Mahmood, **Wei Emma Zhang**, Munazza Zaib, Subhash Sagar, and Rongying Zhao. “Deep learning meets bibliometrics: A survey of citation function classification”. In: *J. Informetrics* 19.1 (2025), p. 101608. DOI: [10.1016/J.JOI.2024.101608](https://doi.org/10.1016/J.JOI.2024.101608). URL: <https://doi.org/10.1016/j.joi.2024.101608>.
- [17] Xinyi Wang, Graziela P. Figueredo, Ruizhe Li, **Wei Emma Zhang**, Weitong Chen, and Xin Chen. “A survey of deep-learning-based radiology report generation using multimodal inputs”. In: *Medical Image Anal.* 103 (2025), p. 103627. DOI: [10.1016/J.MEDIA.2025.103627](https://doi.org/10.1016/J.MEDIA.2025.103627). URL: <https://doi.org/10.1016/j.media.2025.103627>.
- [18] Shuang Wang, He Zhang, Quan Z. Sheng, Xiaoping Li, Zhu Sun, Taotao Cai, **Wei Emma Zhang**, Jian Yang, and Qing Gao. “A Survey on Truth Discovery: Concepts, Methods, Applications, and Opportunities”. In: *IEEE Trans. Big Data* 11.2 (2025), pp. 314–332. DOI: [10.1109/TBDATA.2024.3423677](https://doi.org/10.1109/TBDATA.2024.3423677). URL: <https://doi.org/10.1109/TBDATA.2024.3423677>.

- [19] Haojie Zhuang, **Wei Emma Zhang**, Weitong Chen, Jian Yang, and Quan Z. Sheng. “Improving Faithfulness and Factuality with Contrastive Learning in Explainable Recommendation”. In: *ACM Trans. Intell. Syst. Technol.* 16.1 (2025), 9:1–9:23. DOI: [10.1145/3653984](https://doi.org/10.1145/3653984). URL: <https://doi.org/10.1145/3653984>.
- [20] Chenhao Zhang, Weitong Chen, **Wei Emma Zhang**, and Miao Xu. “Mitigating the Impact of Inaccurate Feedback in Dynamic Learning-to-Rank: A Study of Overlooked Interesting Items”. In: *ACM Trans. Intell. Syst. Technol.* 16.1 (2025), 5:1–5:26. DOI: [10.1145/3653983](https://doi.org/10.1145/3653983). URL: <https://doi.org/10.1145/3653983>.
- [21] Subhash Sagar, Adnan Mahmood, Quan Z. Sheng, **Wei Emma Zhang**, Yang Zhang, and Jitander Kumar Pabani. “Understanding the trustworthiness management in the social Internet of Things: A survey”. In: *Comput. Networks* 251 (2024), p. 110611. DOI: [10.1016/J.COMNET.2024.110611](https://doi.org/10.1016/J.COMNET.2024.110611). URL: <https://doi.org/10.1016/j.comnet.2024.110611>.
- [22] Zihao Li, Yunfan Xie, **Wei Emma Zhang**, Pengfei Wang, Lixin Zou, Fei Li, Xiangyang Luo, and Chenliang Li. “Disentangle interest trend and diversity for sequential recommendation”. In: *Inf. Process. Manag.* 61.2 (2024), p. 103619. DOI: [10.1016/J.IPM.2023.103619](https://doi.org/10.1016/J.IPM.2023.103619). URL: <https://doi.org/10.1016/j.ipm.2023.103619>.
- [23] Zhigang Yang, Yiming Liu, Guiwei Wen, Xiangyu Xia, **Wei Emma Zhang**, and Tao Chen. “Object Detection in Remote Sensing Images With Parallel Feature Fusion and Cascade Global Attention Head”. In: *IEEE Geosci. Remote. Sens. Lett.* 21 (2024), pp. 1–5. DOI: [10.1109/LGRS.2024.3385231](https://doi.org/10.1109/LGRS.2024.3385231). URL: <https://doi.org/10.1109/LGRS.2024.3385231>.
- [24] Zhigang Yang, Xiangyu Xia, Yiming Liu, Guiwei Wen, **Wei Emma Zhang**, and Limin Guo. “LPST-Det: Local-Perception-Enhanced Swin Transformer for SAR Ship Detection”. In: *Remote. Sens.* 16.3 (2024), p. 483. DOI: [10.3390/RS16030483](https://doi.org/10.3390/RS16030483). URL: <https://doi.org/10.3390/rs16030483>.
- [25] Zhigang Yang, Yahui Shen, Lin Hou, **Wei Emma Zhang**, and Tao Chen. “S3Seg: A Three-Stage Unsupervised Foreground and Background Segmentation Network”. In: *IEEE Signal Process. Lett.* 31 (2024), pp. 1484–1488. DOI: [10.1109/LSP.2024.3404348](https://doi.org/10.1109/LSP.2024.3404348). URL: <https://doi.org/10.1109/LSP.2024.3404348>.
- [26] Taotao Cai, Qi Lei, Quan Z. Sheng, Ningning Cui, Shuiqiao Yang, Jian Yang, **Wei Emma Zhang**, and Adnan Mahmood. “Reconnecting the Estranged Relationships: Optimizing the Influence Propagation in Evolving Networks”. In: *IEEE Trans. Knowl. Data Eng.* 36.5 (2024), pp. 2151–2165. DOI: [10.1109/TKDE.2023.3316268](https://doi.org/10.1109/TKDE.2023.3316268). URL: <https://doi.org/10.1109/TKDE.2023.3316268>.
- [27] Congbo Ma, **Wei Emma Zhang**, Mingyu Guo, Hu Wang, and Quan Z. Sheng. “Multi-document Summarization via Deep Learning Techniques: A Survey”. In: *ACM Comput. Surv.* 55.5 (2023), 102:1–102:37. DOI: [10.1145/3529754](https://doi.org/10.1145/3529754). URL: <https://doi.org/10.1145/3529754>.
- [28] Dai Hoang Tran, Quan Z. Sheng, **Wei Emma Zhang**, Abdulwahab Aljubairy, Munazza Zaib, Salma Abdalla Hamad, Nguyen Hoang Tran, and Nguyen Lu Dang Khoa. “HeteGraph: graph learning in recommender systems via graph convolutional networks”. In: *Neural Comput. Appl.* 35.18 (2023), pp. 13047–13063. DOI: [10.1007/S00521-020-05667-Z](https://doi.org/10.1007/S00521-020-05667-Z). URL: <https://doi.org/10.1007/s00521-020-05667-z>.
- [29] Zhigang Yang, Xinbo Jia, Yahui Shen, Yuanlan Yang, Huiyang Li, and **Wei Emma Zhang**. “AMGAN: An Attribute-Matched Generative Adversarial Network for UAV Virtual Sample Generation”. In: *Neural Process. Lett.* 55.6 (2023), pp. 8131–8149. DOI: [10.1007/S11063-023-11304-2](https://doi.org/10.1007/S11063-023-11304-2). URL: <https://doi.org/10.1007/s11063-023-11304-2>.
- [30] Adnan Mahmood, Quan Z. Sheng, **Wei Emma Zhang**, Yan Wang, and Subhash Sagar. “Toward a Distributed Trust Management System for Misbehavior Detection in the Internet of Vehicles”. In: *ACM Trans. Cyber Phys. Syst.* 7.3 (2023), 16:1–16:25. DOI: [10.1145/3594637](https://doi.org/10.1145/3594637). URL: <https://doi.org/10.1145/3594637>.
- [31] Taotao Cai, Shuiqiao Yang, Jianxin Li, Quan Z. Sheng, Jian Yang, Xin Wang, **Wei Emma Zhang**, and Longxiang Gao. “Incremental Graph Computation: Anchored Vertex Tracking in Dynamic Social Networks”. In: *IEEE Trans. Knowl. Data Eng.* 35.7 (2023), pp. 7030–7044. DOI: [10.1109/TKDE.2022.3199494](https://doi.org/10.1109/TKDE.2022.3199494). URL: <https://doi.org/10.1109/TKDE.2022.3199494>.

- [32] Subhash Sagar, Adnan Mahmood, Kai Wang, Quan Z. Sheng, Jitander Kumar Pabani, and **Wei Emma Zhang**. “Trust-SIoT: Toward Trustworthy Object Classification in the Social Internet of Things”. In: *IEEE Trans. Netw. Serv. Manag.* 20.2 (2023), pp. 1210–1223. DOI: [10.1109/TNSM.2023.3247831](https://doi.org/10.1109/TNSM.2023.3247831). URL: <https://doi.org/10.1109/TNSM.2023.3247831>.
- [33] Yanjun Shu, Jianhang Zhang, **Wei Emma Zhang**, Decheng Zuo, and Quan Z. Sheng. “IQSrec: An Efficient and Diversified Skyline Services Recommendation on Incomplete QoS”. In: *IEEE Trans. Serv. Comput.* 16.3 (2023), pp. 1934–1948. DOI: [10.1109/TSC.2022.3189503](https://doi.org/10.1109/TSC.2022.3189503). URL: <https://doi.org/10.1109/TSC.2022.3189503>.
- [34] Dai Hoang Tran, Quan Z. Sheng, **Wei Emma Zhang**, Nguyen Hoang Tran, and Nguyen Lu Dang Khoa. “CupMar: A deep learning model for personalized news recommendation based on contextual user-profile and multi-aspect article representation”. In: *World Wide Web (WWW)* 26.2 (2023), pp. 713–732. DOI: [10.1007/S11280-022-01059-6](https://doi.org/10.1007/S11280-022-01059-6). URL: <https://doi.org/10.1007/s11280-022-01059-6>.
- [35] Weitong Chen, **Wei Emma Zhang**, and Lin Yue. “Death comes but why: A multi-task memory-fused prediction for accurate and explainable illness severity in ICUs”. In: *World Wide Web (WWW)* 26.6 (2023), pp. 4025–4045. DOI: [10.1007/S11280-023-01211-W](https://doi.org/10.1007/S11280-023-01211-W). URL: <https://doi.org/10.1007/s11280-023-01211-w>.
- [36] Dai Hoang Tran, Quan Z. Sheng, **Wei Emma Zhang**, Salma Abdalla Hamad, Nguyen Lu Dang Khoa, and Nguyen Hoang Tran. “Deep Conversational Recommender Systems: Challenges and Opportunities”. In: *Computer* 55.4 (2022), pp. 30–39. DOI: [10.1109/MC.2020.3045426](https://doi.org/10.1109/MC.2020.3045426). URL: <https://doi.org/10.1109/MC.2020.3045426>.
- [37] Adnan Mahmood, Sarah Ali Siddiqui, Quan Z. Sheng, **Wei Emma Zhang**, Hajime Suzuki, and Wei Ni. “Trust on wheels: Towards secure and resource efficient IoV networks”. In: *Computing* 104.6 (2022), pp. 1337–1358. DOI: [10.1007/S00607-021-01040-7](https://doi.org/10.1007/S00607-021-01040-7). URL: <https://doi.org/10.1007/s00607-021-01040-7>.
- [38] Zawar Hussain, Quan Z. Sheng, **Wei Emma Zhang**, Jorge Ortiz, and Seyedamin Pouriyeh. “Non-invasive Techniques for Monitoring Different Aspects of Sleep: A Comprehensive Review”. In: *ACM Trans. Comput. Heal.* 3.2 (2022), 24:1–24:26. DOI: [10.1145/3491245](https://doi.org/10.1145/3491245). URL: <https://doi.org/10.1145/3491245>.
- [39] Munazza Zaib, **Wei Emma Zhang**, Quan Z. Sheng, Adnan Mahmood, and Yang Zhang. “Conversational question answering: a survey”. In: *Knowl. Inf. Syst.* 64.12 (2022), pp. 3151–3195. DOI: [10.1007/S10115-022-01744-Y](https://doi.org/10.1007/S10115-022-01744-Y). URL: <https://doi.org/10.1007/s10115-022-01744-y>.
- [40] Yutong Qu, **Wei Emma Zhang**, Jian Yang, Lingfei Wu, and Jia Wu. “Knowledge-aware document summarization: A survey of knowledge, embedding methods and architectures”. In: *Knowl. Based Syst.* 257 (2022), p. 109882. DOI: [10.1016/J.KNOSYS.2022.109882](https://doi.org/10.1016/J.KNOSYS.2022.109882). URL: <https://doi.org/10.1016/j.knosys.2022.109882>.
- [41] Zhigang Yang, Junyu Kong, Binxi Zheng, Ming Li, **Wei Emma Zhang**, and Tao Chen. “Object Detection in Remote Sensing Images With Balanced Rotational and Horizontal Bounding Boxes”. In: *IEEE Geosci. Remote. Sens. Lett.* 19 (2022), pp. 1–5. DOI: [10.1109/LGRS.2022.3211325](https://doi.org/10.1109/LGRS.2022.3211325). URL: <https://doi.org/10.1109/LGRS.2022.3211325>.
- [42] Yang Zhang, Rongying Zhao, Yufei Wang, Haihua Chen, Adnan Mahmood, Munazza Zaib, **Wei Emma Zhang**, and Quan Z. Sheng. “Towards employing native information in citation function classification”. In: *Scientometrics* 127.11 (2022), pp. 6557–6577. DOI: [10.1007/S11192-021-04242-0](https://doi.org/10.1007/S11192-021-04242-0). URL: <https://doi.org/10.1007/s11192-021-04242-0>.
- [43] Zhizhong Liu, Quan Z. Sheng, Xiaofei Xu, Dianhui Chu, and **Wei Emma Zhang**. “Context-Aware and Adaptive QoS Prediction for Mobile Edge Computing Services”. In: *IEEE Trans. Serv. Comput.* 15.1 (2022), pp. 400–413. DOI: [10.1109/TSC.2019.2944596](https://doi.org/10.1109/TSC.2019.2944596). URL: <https://doi.org/10.1109/TSC.2019.2944596>.
- [44] **Wei Emma Zhang**, Ruidong Chang, Minhao Zhu, and Jian Zuo. “Time Series Visualization and Forecasting from Australian Building and Construction Statistics”. In: *Applied Sciences* 12.5 (2022). ISSN: 2076-3417. DOI: [10.3390/app12052420](https://www.mdpi.com/2076-3417/12/5/2420). URL: <https://www.mdpi.com/2076-3417/12/5/2420>.

- [45] Kai Xing, Pan Zhou, Jiaojiao Li, Miao Liu, and **Wei Emma Zhang**. “Inhibitory Effect of PD-1/PD-L1 and Blockade Immunotherapy in Leukemia”. In: *Comb Chem High Throughput Screen.* 25.9 (2022), pp. 1399–1410. DOI: [10.2174/1574893616666210707101516](https://doi.org/10.2174/1574893616666210707101516). URL: <https://doi.org/10.2174/1574893616666210707101516>.
- [46] **Wei Emma Zhang**, Ali Shemshadi, Quan Z. Sheng, Yongrui Qin, Xiujuan Xu, and Jian Yang. “A User-Oriented Taxi Ridesharing System with Large-Scale Urban GPS Sensor Data”. In: *IEEE Trans. Big Data* 7.2 (2021), pp. 327–340. DOI: [10.1109/TBDATA.2018.2872450](https://doi.org/10.1109/TBDATA.2018.2872450). URL: <https://doi.org/10.1109/TBDATA.2018.2872450>.
- [47] Vanh Khuyen Nguyen, **Wei Emma Zhang**, and Adnan Mahmood. “Semi-supervised Intrusive Appliance Load Monitoring in Smart Energy Monitoring System”. In: *ACM Trans. Sens. Networks* 17.3 (2021), 32:1–32:20. DOI: [10.1145/3448415](https://doi.org/10.1145/3448415). URL: <https://doi.org/10.1145/3448415>.
- [48] Abdulwahab Aljubairy, **Wei Emma Zhang**, Ali Shemshadi, Adnan Mahmood, and Quan Z. Sheng. “A system for effectively predicting flight delays based on IoT data”. In: *Computing* 102.9 (2020), pp. 2025–2048. DOI: [10.1007/S00607-020-00794-W](https://doi.org/10.1007/S00607-020-00794-W). URL: <https://doi.org/10.1007/S00607-020-00794-W>.
- [49] Salma Abdalla Hamad, Quan Z. Sheng, **Wei Emma Zhang**, and Surya Nepal. “Realizing an Internet of Secure Things: A Survey on Issues and Enabling Technologies”. In: *IEEE Commun. Surv. Tutorials* 22.2 (2020), pp. 1372–1391. DOI: [10.1109/COMST.2020.2976075](https://doi.org/10.1109/COMST.2020.2976075). URL: <https://doi.org/10.1109/COMST.2020.2976075>.
- [50] Zawar Hussain, Quan Z. Sheng, and **Wei Emma Zhang**. “A review and categorization of techniques on device-free human activity recognition”. In: *J. Netw. Comput. Appl.* 167 (2020), p. 102738. DOI: [10.1016/J.JNCA.2020.102738](https://doi.org/10.1016/J.JNCA.2020.102738). URL: <https://doi.org/10.1016/J.JNCA.2020.102738>.
- [51] **Wei Emma Zhang**, Quan Z. Sheng, Ahoud Alhazmi, and Chenliang Li. “Adversarial Attacks on Deep-learning Models in Natural Language Processing: A Survey”. In: *ACM Trans. Intell. Syst. Technol.* 11.3 (2020), 24:1–24:41. DOI: [10.1145/3374217](https://doi.org/10.1145/3374217). URL: <https://doi.org/10.1145/3374217>.
- [52] Xiu Susie Fang, Quan Z. Sheng, Xianzhi Wang, **Wei Emma Zhang**, Anne H. H. Ngu, and Jian Yang. “From Appearance to Essence: Comparing Truth Discovery Methods without Using Ground Truth”. In: *ACM Trans. Intell. Syst. Technol.* 11.6 (2020), 74:1–74:24. DOI: [10.1145/3411749](https://doi.org/10.1145/3411749). URL: <https://doi.org/10.1145/3411749>.
- [53] Zawar Hussain, David Waterworth, Murtadha Aldeer, **Wei Emma Zhang**, and Quan Z. Sheng. *Dataset: Toothbrushing Data and Analysis of its Potential Use in Human Activity Recognition Applications (Version 1)*. Oct. 2020. DOI: [10.5281/ZENODO.4118900](https://doi.org/10.5281/ZENODO.4118900). URL: <https://doi.org/10.5281/zenodo.4118900>.
- [54] Nguyen Khoi Tran, Quan Z. Sheng, Muhammad Ali Babar, Lina Yao, **Wei Emma Zhang**, and Schahram Dustdar. “Internet of things search engine”. In: *Commun. ACM* 62.7 (2019), pp. 66–73. DOI: [10.1145/3284763](https://doi.org/10.1145/3284763). URL: <https://doi.org/10.1145/3284763>.
- [55] Adnan Mahmood, **Wei Emma Zhang**, and Quan Z. Sheng. “Software-Defined Heterogeneous Vehicular Networking: The Architectural Design and Open Challenges”. In: *Future Internet* 11.3 (2019), p. 70. DOI: [10.3390/FI11030070](https://doi.org/10.3390/FI11030070). URL: <https://doi.org/10.3390/fi11030070>.
- [56] Lina Yao, Quan Z. Sheng, Xianzhi Wang, **Wei Emma Zhang**, and Yongrui Qin. “Collaborative Location Recommendation by Integrating Multi-dimensional Contextual Information”. In: *ACM Trans. Internet Techn.* 18.3 (2018), 32:1–32:24. DOI: [10.1145/3134438](https://doi.org/10.1145/3134438). URL: <https://doi.org/10.1145/3134438>.
- [57] **Wei Emma Zhang**, Quan Z. Sheng, Lina Yao, Kerry Taylor, Ali Shemshadi, and Yongrui Qin. “A Learning-Based Framework for Improving Querying on Web Interfaces of Curated Knowledge Bases”. In: *ACM Trans. Internet Techn.* 18.3 (2018), 35:1–35:20. DOI: [10.1145/3155806](https://doi.org/10.1145/3155806). URL: <https://doi.org/10.1145/3155806>.
- [58] **Wei Emma Zhang**, Quan Z. Sheng, Jey Han Lau, Ermyas Abebe, and Wenjie Ruan. “Duplicate Detection in Programming Question Answering Communities”. In: *ACM Trans. Internet Techn.* 18.3 (2018), 37:1–37:21. DOI: [10.1145/3169795](https://doi.org/10.1145/3169795). URL: <https://doi.org/10.1145/3169795>.

- [59] **Wei Emma Zhang**, Quan Z. Sheng, Yongrui Qin, Kerry Taylor, and Lina Yao. “Learning-based SPARQL query performance modeling and prediction”. In: *World Wide Web* 21.4 (2018), pp. 1015–1035. DOI: [10.1007/S11280-017-0498-1](https://doi.org/10.1007/S11280-017-0498-1). URL: <https://doi.org/10.1007/s11280-017-0498-1>.
- [60] Ali Shemshadi, Quan Z. Sheng, Yongrui Qin, Aixin Sun, **Wei Emma Zhang**, and Lina Yao. “Searching for the internet of things: where it is and what it looks like”. In: *Pers. Ubiquitous Comput.* 21.6 (2017), pp. 1097–1112. DOI: [10.1007/S00779-017-1034-0](https://doi.org/10.1007/S00779-017-1034-0). URL: <https://doi.org/10.1007/s00779-017-1034-0>.

Conference Publications

- [61] Mong Yuan Sim, **Wei Emma Zhang**, Xiang Dai, Biaoyan Fang, Sarbin Ranjitkar, Arjun Burlakoti, Jamie Taylor, and Haojie Zhuang. “The More, The Better? A Critical Study of Multimodal Context in Radiology Report Summarization”. In: *Findings of the Association for Computational Linguistics: EMNLP 2025, Suzhou, China, November 5-9, 2025*. Association for Computational Linguistics, 2025, Accepted.
- [62] Elaf Alhazmi, Quan Z. Sheng, **Wei Emma Zhang**, Mohammed I. Thanoon, Haojie Zhuang, Behnaz Soltani, and Munazza Zaib. “Fine-Tuning Encoder-Decoder Models with Contrastive Learning for In-Context Distractor Generation”. In: *Findings of the Association for Computational Linguistics: EMNLP 2025, Suzhou, China, November 5-9, 2025*. Association for Computational Linguistics, 2025, Accepted.
- [63] Lishan Yang, **Wei Emma Zhang**, Michael Sheng, Lina Yao, Weitong Chen, and Ali Shakeri. “MMiC: Mitigating Modality Incompleteness in Clustered Federated Learning”. In: *Proceedings of the 34th ACM International Conference on Information and Knowledge Management, CIKM 2025, Seoul, Korea, November 10-14, 2025*. ACM, 2025, Accepted.
- [64] Liangwei Zheng, **Wei Emma Zhang**, Lin Yue, Miao Xu, Olaf Maennel, and Weitong Chen. “Adaptive Spline Networks in the Kolmogorov–Arnold Framework: Knot Analysis and Stability Enhancement”. In: *Proceedings of the 34th ACM International Conference on Information and Knowledge Management, CIKM 2025, Seoul, Korea, November 10-14, 2025*. ACM, 2025, Accepted.
- [65] Wenhao Liang, **Wei Emma Zhang**, Lin Yue, Miao Xu, Olaf Maennel, and Weitong Chen. “Calibrating on Medical Segmentation Model through Signed Distance”. In: *Proceedings of the 34th ACM International Conference on Information and Knowledge Management, CIKM 2025, Seoul, Korea, November 10-14, 2025*. ACM, 2025, Accepted.
- [66] Wenhao Liang, **Wei Emma Zhang**, Lin Yue, Miao Xu, Olaf Maennel, and Weitong Chen. “Calibrating on Kolmogorov–Arnold Network”. In: *Proceedings of the 34th ACM International Conference on Information and Knowledge Management, CIKM 2025, Seoul, Korea, November 10-14, 2025*. ACM, 2025, Accepted.
- [67] Liangwei Nathan Zheng, Chang Dong, **Wei Emma Zhang**, Lin Yue, Miao Xu, Olaf Maennel, and Weitong Chen. “Understanding Why Large Language Models Can Be Ineffective in Time Series Analysis: The Impact of Modality Alignment”. In: *Proceedings of the 31st ACM SIGKDD Conference on Knowledge Discovery and Data Mining, V.2, KDD 2025, Toronto, ON, Canada, August 3-7, 2025*. ACM, 2025, pp. 4026–4037. DOI: [10.1145/3711896.3737169](https://doi.org/10.1145/3711896.3737169). URL: <https://doi.org/10.1145/3711896.3737169>.
- [68] Mong Yuan Sim, **Wei Emma Zhang**, Xiang Dai, and Biaoyan Fang. “Can VLMs Actually See and Read? A Survey on Modality Collapse in Vision-Language Models”. In: *Findings of the Association for Computational Linguistics, ACL 2025, Vienna, Austria, July 27 - August 1, 2025*. Ed. by Wanxiang Che, Joyce Nabende, Ekaterina Shutova, and Mohammad Taher Pilehvar. Association for Computational Linguistics, 2025, pp. 24452–24470. URL: <https://aclanthology.org/2025.findings-acl.1256/>.
- [69] Chenhao Zhang, Weitong Chen, **Wei Emma Zhang**, and Miao Xu. “Countering Relearning with Perception Revising Unlearning”. In: *Asian Conference on Machine Learning, 5-8 December 2024, Hanoi, Vietnam*. Ed. by Vu Nguyen and Hsuan-Tien Lin. Vol. 260. Proceedings of Machine Learning Research. PMLR, 2024, pp. 1336–1351. URL: <https://proceedings.mlr.press/v260/zhang25d.html>.

- [70] Munazza Zaib, Quan Z. Sheng, **Wei Emma Zhang**, Elaf Alhazmi, and Adnan Mahmood. “Learning Contrastive Representations for Dense Passage Retrieval in Open-Domain Conversational Question Answering”. In: *Web Information Systems Engineering - WISE 2024 - 25th International Conference, Doha, Qatar, December 2-5, 2024, Proceedings, Part I*. Ed. by Mahmoud Barhamgi, Hua Wang, and Xin Wang. Vol. 15436. Lecture Notes in Computer Science. Springer, 2024, pp. 3–13. DOI: [10.1007/978-981-96-0579-8_1](https://doi.org/10.1007/978-981-96-0579-8_1). URL: https://doi.org/10.1007/978-981-96-0579-8_1.
- [71] Elaf Alhazmi, Quan Z. Sheng, **Wei Emma Zhang**, Munazza Zaib, and Ahoud Alhazmi. “Distractor Generation in Multiple-Choice Tasks: A Survey of Methods, Datasets, and Evaluation”. In: *Proceedings of the 2024 Conference on Empirical Methods in Natural Language Processing*. Ed. by Yaser Al-Onaizan, Mohit Bansal, and Yun-Nung Chen. Miami, Florida, USA: Association for Computational Linguistics, Nov. 2024, pp. 14437–14458. URL: <https://aclanthology.org/2024.emnlp-main.799>.
- [72] Haojie Zhuang, **Wei Emma Zhang**, Jian Yang, Weitong Chen, and Quan Z. Sheng. “Not All Negatives are Equally Negative: Soft Contrastive Learning for Unsupervised Sentence Representations”. In: *Proceedings of the 33rd ACM International Conference on Information and Knowledge Management, CIKM 2024, Boise, ID, USA, October 21-25, 2024*. Ed. by Edoardo Serra and Francesca Spezzano. ACM, 2024, pp. 3591–3601. DOI: [10.1145/3627673.3679745](https://doi.org/10.1145/3627673.3679745). URL: <https://doi.org/10.1145/3627673.3679745>.
- [73] Chang George Dong, Zhengyang David Li, Liangwei Nathan Zheng, Weitong Chen, and **Wei Emma Zhang**. “Boosting Certificate Robustness for Time Series Classification with Efficient Self-Ensemble”. In: *Proceedings of the 33rd ACM International Conference on Information and Knowledge Management, CIKM 2024, Boise, ID, USA, October 21-25, 2024*. Ed. by Edoardo Serra and Francesca Spezzano. ACM, 2024, pp. 477–486. DOI: [10.1145/3627673.3679748](https://doi.org/10.1145/3627673.3679748). URL: <https://doi.org/10.1145/3627673.3679748>.
- [74] Liangwei Nathan Zheng, Chang George Dong, **Wei Emma Zhang**, Xin Chen, Lin Yue, and Weitong Chen. “Devil in the Tail: A Multi-Modal Framework for Drug-Drug Interaction Prediction in Long Tail Distinction”. In: *Proceedings of the 33rd ACM International Conference on Information and Knowledge Management, CIKM 2024, Boise, ID, USA, October 21-25, 2024*. Ed. by Edoardo Serra and Francesca Spezzano. ACM, 2024, pp. 3395–3404. DOI: [10.1145/3627673.3679719](https://doi.org/10.1145/3627673.3679719). URL: <https://doi.org/10.1145/3627673.3679719>.
- [75] Liangwei Nathan Zheng, Zhengyang Li, Chang George Dong, **Wei Emma Zhang**, Lin Yue, Miao Xu, Olaf Maennel, and Weitong Chen. “Irregularity-Informed Time Series Analysis: Adaptive Modelling of Spatial and Temporal Dynamics”. In: *Proceedings of the 33rd ACM International Conference on Information and Knowledge Management, CIKM 2024, Boise, ID, USA, October 21-25, 2024*. Ed. by Edoardo Serra and Francesca Spezzano. ACM, 2024, pp. 3405–3414. DOI: [10.1145/3627673.3679716](https://doi.org/10.1145/3627673.3679716). URL: <https://doi.org/10.1145/3627673.3679716>.
- [76] Congbo Ma, **Wei Emma Zhang**, Hu Wang, Haojie Zhuang, and Mingyu Guo. “Disentangling Specificity for Abstractive Multi-document Summarization”. In: *International Joint Conference on Neural Networks, IJCNN 2024, Yokohama, Japan, June 30 - July 5, 2024*. IEEE, 2024, pp. 1–8. DOI: [10.1109/IJCNN60899.2024.10651001](https://doi.org/10.1109/IJCNN60899.2024.10651001). URL: <https://doi.org/10.1109/IJCNN60899.2024.10651001>.
- [77] Haojie Zhuang, **Wei Emma Zhang**, Leon Xie, Weitong Chen, Jian Yang, and Quan Sheng. “Automatic, Meta and Human Evaluation for Multimodal Summarization with Multimodal Output”. In: *Proceedings of the 2024 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (Volume 1: Long Papers), NAACL 2024, Mexico City, Mexico, June 16-21, 2024*. Ed. by Kevin Duh, Helena Gómez-Adorno, and Steven Bethard. Association for Computational Linguistics, 2024, pp. 7768–7790. DOI: [10.18653/v1/2024.NAACL-LONG.430](https://doi.org/10.18653/v1/2024.NAACL-LONG.430). URL: <https://doi.org/10.18653/v1/2024.naacl-long.430>.
- [78] Haojie Zhuang, **Wei Emma Zhang**, Chang Dong, Jian Yang, and Quan Sheng. “Trainable Hard Negative Examples in Contrastive Learning for Unsupervised Abstractive Summarization”. In: *Findings of the Association for Computational Linguistics: EACL 2024, St. Julian’s, Malta, March 17-22, 2024*. Ed. by Yvette Graham and Matthew Purver. Association for Computational Linguistics, 2024, pp. 1589–1600. URL: <https://aclanthology.org/2024.findings-eacl.110>.

- [79] Taotao Cai, Shuiqiao Yang, Jianxin Li, Quan Z. Sheng, Jian Yang, Xin Wang, **Wei Emma Zhang**, and Longxiang Gao. “Incremental Graph Computation: Anchored Vertex Tracking in Dynamic Social Networks (Extended Abstract)”. In: *40th IEEE International Conference on Data Engineering, ICDE 2024, Utrecht, The Netherlands, May 13-16, 2024*. IEEE, 2024, pp. 5723–5724. DOI: [10.1109/ICDE60146.2024.00493](https://doi.org/10.1109/ICDE60146.2024.00493). URL: <https://doi.org/10.1109/ICDE60146.2024.00493>.
- [80] Lipin Guo, **Wei Emma Zhang**, Weitong Chen, Ni Yang, Queen Nguyen, and Trung Duc Vo. “Oyster Mushroom Growth Stage Identification: An Exploration of Computer Vision Technologies”. In: *AI 2023: Advances in Artificial Intelligence - 36th Australasian Joint Conference on Artificial Intelligence, AI 2023, Brisbane, QLD, Australia, November 28 - December 1, 2023, Proceedings, Part I*. Ed. by Tongliang Liu, Geoffrey I. Webb, Lin Yue, and Dadong Wang. Vol. 14471. Lecture Notes in Computer Science. Springer, 2023, pp. 67–78. DOI: [10.1007/978-981-99-8388-9_6](https://doi.org/10.1007/978-981-99-8388-9_6). URL: https://doi.org/10.1007/978-981-99-8388-9_6.
- [81] **Wei Emma Zhang**, Perry Chen, Jian Yang, Yongping Tang, and Jianwen Su. “A Capability Description Language Design for Data Products”. In: *Proceedings of the Second ACM Data Economy Workshop, DEC 2023, Seattle, WA, USA, 18 June 2023*. ACM, 2023, pp. 21–26. DOI: [10.1145/3600046.3600050](https://doi.org/10.1145/3600046.3600050). URL: <https://doi.org/10.1145/3600046.3600050>.
- [82] Chang George Dong, Liangwei Nathan Zheng, Weitong Chen, **Wei Emma Zhang**, and Lin Yue. “SWAP: Exploiting Second-Ranked Logits for Adversarial Attacks on Time Series”. In: *IEEE International Conference on Knowledge Graph, ICKG 2023, Shanghai, China, December 1-2, 2023*. Ed. by Victor S. Sheng, Chindo Hicks, Charles Ling, Vijay Raghavan, and Xindong Wu. IEEE, 2023, pp. 117–125. DOI: [10.1109/ICKG59574.2023.00020](https://doi.org/10.1109/ICKG59574.2023.00020). URL: <https://doi.org/10.1109/ICKG59574.2023.00020>.
- [83] **Wei Emma Zhang**, Perry Chen, Jian Yang, Jianwen Su, and Quan Z. Sheng. “Data Product-Oriented Services for Data Ecosystem”. In: *IEEE International Conference on Web Services, ICWS 2023, Chicago, IL, USA, July 2-8, 2023*. Ed. by Claudio A. Ardagna, Boualem Benatallah, Hongyi Bian, Carl K. Chang, Rong N. Chang, Jing Fan, Geoffrey C. Fox, Zhi Jin, Xuanzhe Liu, Heiko Ludwig, Michael Sheng, and Jian Yang. IEEE, 2023, pp. 755–762. DOI: [10.1109/ICWS60048.2023.00102](https://doi.org/10.1109/ICWS60048.2023.00102). URL: <https://doi.org/10.1109/ICWS60048.2023.00102>.
- [84] Chen Chen, **Wei Emma Zhang**, Alireza Seyed Shakeri, and Makhmoor Fiza. “The Exploration of Knowledge-Preserving Prompts for Document Summarisation”. In: *International Joint Conference on Neural Networks, IJCNN 2023, Gold Coast, Australia, June 18-23, 2023*. IEEE, 2023, pp. 1–8. DOI: [10.1109/IJCNN54540.2023.10191910](https://doi.org/10.1109/IJCNN54540.2023.10191910). URL: <https://doi.org/10.1109/IJCNN54540.2023.10191910>.
- [85] Munazza Zaib, Quan Z. Sheng, **Wei Emma Zhang**, and Adnan Mahmood. “Keeping the Questions Conversational: Using Structured Representations to Resolve Dependency in Conversational Question Answering”. In: *International Joint Conference on Neural Networks, IJCNN 2023, Gold Coast, Australia, June 18-23, 2023*. IEEE, 2023, pp. 1–7. DOI: [10.1109/IJCNN54540.2023.10191510](https://doi.org/10.1109/IJCNN54540.2023.10191510). URL: <https://doi.org/10.1109/IJCNN54540.2023.10191510>.
- [86] Yang Zhang, Yufei Wang, Quan Z. Sheng, Adnan Mahmood, **Wei Emma Zhang**, and Rongying Zhao. “Hybrid Data Augmentation for Citation Function Classification”. In: *International Joint Conference on Neural Networks, IJCNN 2023, Gold Coast, Australia, June 18-23, 2023*. IEEE, 2023, pp. 1–8. DOI: [10.1109/IJCNN54540.2023.10191695](https://doi.org/10.1109/IJCNN54540.2023.10191695). URL: <https://doi.org/10.1109/IJCNN54540.2023.10191695>.
- [87] Zicong Wen, **Wei Emma Zhang**, Lipin Guo, and Weitong Chen. “Demo Abstract: Navigating Indoors: A Cost-effective Drone-based Solution”. In: *Proceedings of the 21st ACM Conference on Embedded Networked Sensor Systems, SenSys 2023, Istanbul, Turkiye, November 12-17, 2023*. Ed. by M. Rasit Eskicioglu, Polly Huang, and Neal Patwari. ACM, 2023, pp. 496–497. DOI: [10.1145/3625687.3628412](https://doi.org/10.1145/3625687.3628412). URL: <https://doi.org/10.1145/3625687.3628412>.
- [88] Munazza Zaib, **Wei Emma Zhang**, Quan Z. Sheng, Subhash Sagar, Adnan Mahmood, and Yang Zhang. “Learning to Select the Relevant History Turns in Conversational Question Answering”. In: *Web Information Systems Engineering - WISE 2023 - 24th International Conference, Melbourne, VIC, Australia, October 25-27, 2023, Proceedings*. Ed. by Feng Zhang, Hua Wang, Mahmoud Barhamgi, Lu Chen, and Rui Zhou. Vol. 14306. Lecture Notes in Computer Science. Springer, 2023, pp. 334–348. DOI: [10.1007/978-981-99-7254-8_26](https://doi.org/10.1007/978-981-99-7254-8_26). URL: https://doi.org/10.1007/978-981-99-7254-8_26.

- [89] **Wei Emma Zhang**, Adnan Mahmood, Lixin Deng, and Minhao Zhu. “SimSumIoT: A Platform for Simulating the Summarisation from Internet of Things”. In: *Proceedings of the Sixteenth ACM International Conference on Web Search and Data Mining, WSDM 2023, Singapore, 27 February 2023 - 3 March 2023*. Ed. by Tat-Seng Chua, Hady W. Lauw, Luo Si, Evimaria Terzi, and Panayiotis Tsaparas. ACM, 2023, pp. 1188–1191. DOI: [10.1145/3539597.3573042](https://doi.org/10.1145/3539597.3573042). URL: <https://doi.org/10.1145/3539597.3573042>.
- [90] Haojie Zhuang, **Wei Emma Zhang**, Jian Yang, Congbo Ma, Yutong Qu, and Quan Z. Sheng. “Learning From the Source Document: Unsupervised Abstractive Summarization”. In: *Findings of the Association for Computational Linguistics: EMNLP 2022, Abu Dhabi, United Arab Emirates, December 7-11, 2022*. Ed. by Yoav Goldberg, Zornitsa Kozareva, and Yue Zhang. Association for Computational Linguistics, 2022, pp. 4194–4205. DOI: [10.18653/v1/2022.FINDINGS-EMNLP.309](https://doi.org/10.18653/v1/2022.FINDINGS-EMNLP.309). URL: <https://doi.org/10.18653/v1/2022.findings-emnlp.309>.
- [91] Mong Yuan Sim, **Wei Emma Zhang**, and Congbo Ma. “An Empirical Study on Topic Preservation in Multi-Document Summarization”. In: *Proceedings of the 2nd Conference of the Asia-Pacific Chapter of the Association for Computational Linguistics and the 12th International Joint Conference on Natural Language Processing, ACL/IJCNLP 2022 - Student Research Workshop, Online, November 20, 2022*. Ed. by Hanqi Yan, Zonghan Yang, Sebastian Ruder, and Xiaojun Wan. Association for Computational Linguistics, 2022, pp. 61–67. URL: <https://aclanthology.org/2022.aacl-srw.9>.
- [92] Congbo Ma, **Wei Emma Zhang**, Hu Wang, Shubham Gupta, and Mingyu Guo. “Incorporating Linguistic Knowledge for Abstractive Multi-document Summarization”. In: *Proceedings of the 36th Pacific Asia Conference on Language, Information and Computation, PACLIC 2022, Manila, Philippines, October 20-22, 2022*. Ed. by Shirley Dita, Arlene O. Trillanes, and Rochelle Irene Lucas. De La Salle University, 2022, pp. 147–156. URL: <https://aclanthology.org/2022.paclic-1.17>.
- [93] Na Liu, Mark Dras, and **Wei Emma Zhang**. “Detecting Textual Adversarial Examples Based on Distributional Characteristics of Data Representations”. In: *Proceedings of the 7th Workshop on Representation Learning for NLP, Repl4NLP@ACL 2022, Dublin, Ireland, May 26, 2022*. Ed. by Spandana Gella, He He, Bodhisattwa Prasad Majumder, Burcu Can, Eleonora Giunchiglia, Samuel Cahyawijaya, Sewon Min, Maximilian Mozes, Xiang Lorraine Li, Isabelle Augenstein, Anna Rogers, Kyunghyun Cho, Edward Grefenstette, Laura Rimell, and Chris Dyer. Association for Computational Linguistics, 2022, pp. 78–90. DOI: [10.18653/v1/2022.REPL4NLP-1.9](https://doi.org/10.18653/v1/2022.REPL4NLP-1.9). URL: <https://doi.org/10.18653/v1/2022.repl4nlp-1.9>.
- [94] Abdulwahab Aljubairy, Ahoud Alhazmi, **Wei Emma Zhang**, Quan Z. Sheng, and Dai Hoang Tran. “A Fast and Accurate Approach for Inferencing Social Relationships Among IoT Objects”. In: *Advanced Data Mining and Applications - 17th International Conference, ADMA 2021, Sydney, NSW, Australia, February 2-4, 2022, Proceedings, Part II*. Ed. by Bohan Li, Lin Yue, Jing Jiang, Weitong Chen, Xue Li, Guodong Long, Fei Fang, and Han Yu. Vol. 13088. Lecture Notes in Computer Science. Springer, 2021, pp. 83–94. DOI: [10.1007/978-3-030-95408-6_7](https://doi.org/10.1007/978-3-030-95408-6_7). URL: https://doi.org/10.1007/978-3-030-95408-6_7.
- [95] Adnan Mahmood, Quan Z. Sheng, Sarah Ali Siddiqui, Subhash Sagar, **Wei Emma Zhang**, Hajime Suzuki, and Wei Ni. “When Trust Meets the Internet of Vehicles: Opportunities, Challenges, and Future Prospects”. In: *7th IEEE International Conference on Collaboration and Internet Computing, CIC 2021, Atlanta, GA, USA, December 13-15, 2021*. IEEE, 2021, pp. 60–67. DOI: [10.1109/CIC52973.2021.00018](https://doi.org/10.1109/CIC52973.2021.00018). URL: <https://doi.org/10.1109/CIC52973.2021.00018>.
- [96] **Wei Emma Zhang** and Queen Nguyen. “Constructing COVID-19 Knowledge Graph from A Large Corpus of Scientific Articles”. In: *2021 IEEE International Conference on Big Knowledge, ICBK 2021, Auckland, New Zealand, December 7-8, 2021*. Ed. by Lei Chen and Baltasar Fernández-Manjón. IEEE, 2021, pp. 237–244. DOI: [10.1109/ICKG52313.2021.00040](https://doi.org/10.1109/ICKG52313.2021.00040). URL: <https://doi.org/10.1109/ICKG52313.2021.00040>.
- [97] Zawar Hussain, David Waterworth, Murtadha Aldeer, **Wei Emma Zhang**, Quan Z. Sheng, and Jorge Ortiz. “Do You Brush Your Teeth Properly? An Off-body Sensor-based Approach for Toothbrushing Monitoring”. In: *IEEE International Conference on Digital Health, ICDH 2021, Chicago, IL, USA, September 5-10, 2021*. IEEE, 2021, pp. 59–69. DOI: [10.1109/ICDH52753.2021.00018](https://doi.org/10.1109/ICDH52753.2021.00018). URL: <https://doi.org/10.1109/ICDH52753.2021.00018>.

- [98] Ahoud Alhazmi, Abdulwahab Aljubairy, **Wei Emma Zhang**, Quan Z. Sheng, and Elaf Alhazmi. “A Unified Framework for Improving Misclassifications in Modern Deep Neural Networks for Sentiment Analysis”. In: *International Joint Conference on Neural Networks, IJCNN 2021, Shenzhen, China, July 18-22, 2021*. IEEE, 2021, pp. 1–7. DOI: [10.1109/IJCNN52387.2021.9534168](https://doi.org/10.1109/IJCNN52387.2021.9534168). URL: <https://doi.org/10.1109/IJCNN52387.2021.9534168>.
- [99] **Wei Emma Zhang**, Miao Liu, Alan Pallath, and Gokul Tamilventhan. “A Web-based Knowledge Hub for Exploration of Multiple Research Article Collections”. In: *SIGIR '21: The 44th International ACM SIGIR Conference on Research and Development in Information Retrieval, Virtual Event, Canada, July 11-15, 2021*. Ed. by Fernando Diaz, Chirag Shah, Torsten Suel, Pablo Castells, Rosie Jones, and Tetsuya Sakai. ACM, 2021, pp. 2556–2559. DOI: [10.1145/3404835.3462780](https://doi.org/10.1145/3404835.3462780). URL: <https://doi.org/10.1145/3404835.3462780>.
- [100] Salma Abdalla Hamad, Dai Hoang Tran, Quan Z. Sheng, and **Wei Emma Zhang**. “BERTDeepWare: A Cross-architecture Malware Detection Solution for IoT Systems”. In: *20th IEEE International Conference on Trust, Security and Privacy in Computing and Communications, TrustCom 2021, Shenyang, China, October 20-22, 2021*. IEEE, 2021, pp. 927–934. DOI: [10.1109/TrustCom53373.2021.00130](https://doi.org/10.1109/TrustCom53373.2021.00130). URL: <https://doi.org/10.1109/TrustCom53373.2021.00130>.
- [101] Dai Hoang Tran, Salma Abdalla Hamad, Munazza Zaib, Abdulwahab Aljubairy, Quan Z. Sheng, **Wei Emma Zhang**, Nguyen Hoang Tran, and Nguyen Lu Dang Khoa. “Deep News Recommendation with Contextual User Profiling and Multifaceted Article Representation”. In: *Web Information Systems Engineering - WISE 2021 - 22nd International Conference on Web Information Systems Engineering, WISE 2021, Melbourne, VIC, Australia, October 26-29, 2021, Proceedings, Part II*. Ed. by Wenjie Zhang, Lei Zou, Zakaria Maamar, and Lu Chen. Vol. 13081. Lecture Notes in Computer Science. Springer, 2021, pp. 237–251. DOI: [10.1007/978-3-030-91560-5_17](https://doi.org/10.1007/978-3-030-91560-5_17). URL: https://doi.org/10.1007/978-3-030-91560-5_17.
- [102] Yang Zhang, Yufei Wang, Quan Z. Sheng, Adnan Mahmood, **Wei Emma Zhang**, and Rongying Zhao. “TDM-CFC: Towards Document-Level Multi-label Citation Function Classification”. In: *Web Information Systems Engineering - WISE 2021 - 22nd International Conference on Web Information Systems Engineering, WISE 2021, Melbourne, VIC, Australia, October 26-29, 2021, Proceedings, Part II*. Ed. by Wenjie Zhang, Lei Zou, Zakaria Maamar, and Lu Chen. Vol. 13081. Lecture Notes in Computer Science. Springer, 2021, pp. 363–376. DOI: [10.1007/978-3-030-91560-5_26](https://doi.org/10.1007/978-3-030-91560-5_26). URL: https://doi.org/10.1007/978-3-030-91560-5_26.
- [103] Abdulwahab Aljubairy, Ahoud Alhazmi, **Wei Emma Zhang**, Quan Z. Sheng, and Dai Hoang Tran. “Towards a Deep Learning-Driven Service Discovery Framework for the Social Internet of Things: A Context-Aware Approach”. In: *Web Information Systems Engineering - WISE 2021 - 22nd International Conference on Web Information Systems Engineering, WISE 2021, Melbourne, VIC, Australia, October 26-29, 2021, Proceedings, Part II*. Ed. by Wenjie Zhang, Lei Zou, Zakaria Maamar, and Lu Chen. Vol. 13081. Lecture Notes in Computer Science. Springer, 2021, pp. 480–488. DOI: [10.1007/978-3-030-91560-5_35](https://doi.org/10.1007/978-3-030-91560-5_35). URL: https://doi.org/10.1007/978-3-030-91560-5_35.
- [104] Munazza Zaib, Quan Z. Sheng, and **Wei Emma Zhang**. “A Short Survey of Pre-trained Language Models for Conversational AI-A New Age in NLP”. In: *Proceedings of the Australasian Computer Science Week, ACSW 2020, Melbourne, VIC, Australia, February 3-7, 2020*. Ed. by Prem Prakash Jayaraman, Dimitrios Georgakopoulos, Timos K. Sellis, and Abdur Forkan. ACM, 2020, 11:1–11:4. DOI: [10.1145/3373017.3373028](https://doi.org/10.1145/3373017.3373028). URL: <https://doi.org/10.1145/3373017.3373028>.
- [105] Abdulwahab Aljubairy, **Wei Emma Zhang**, Quan Z. Sheng, and Ahoud Alhazmi. “SIoTPredict: A Framework for Predicting Relationships in the Social Internet of Things”. In: *Advanced Information Systems Engineering - 32nd International Conference, CAiSE 2020, Grenoble, France, June 8-12, 2020, Proceedings*. Ed. by Schahram Dustdar, Eric Yu, Camille Salinesi, Dominique Rieu, and Vik Pant. Vol. 12127. Lecture Notes in Computer Science. Springer, 2020, pp. 101–116. DOI: [10.1007/978-3-030-49435-3_7](https://doi.org/10.1007/978-3-030-49435-3_7). URL: https://doi.org/10.1007/978-3-030-49435-3_7.
- [106] Vanh Khuyen Nguyen, Quan Z. Sheng, Adnan Mahmood, **Wei Emma Zhang**, and Trung Duc Vo. “Helibot - A Smart Distributed Energy Resources Platform for Futuristic Smart Grids”. In: *20th IEEE/ACM International Symposium on Cluster, Cloud and Internet Computing, CCGRID 2020, Melbourne, Australia, May 11-14, 2020*. IEEE, 2020, pp. 898–901. DOI: [10.1109/CCGRID49817.2020.00017](https://doi.org/10.1109/CCGRID49817.2020.00017). URL: <https://doi.org/10.1109/CCGRID49817.2020.00017>.

- [107] **Wei Emma Zhang**, Quan Z. Sheng, Adnan Mahmood, Dai Hoang Tran, Munazza Zaib, Salma Abdalla Hamad, Abdulwahab Aljubairy, Ahoud Abdulrahmn F. Alhazmi, Subhash Sagar, and Congbo Ma. “The 10 Research Topics in the Internet of Things”. In: *6th IEEE International Conference on Collaboration and Internet Computing, CIC 2020, Atlanta, GA, USA, December 1-3, 2020*. IEEE, 2020, pp. 34–43. DOI: [10.1109/CIC50333.2020.00015](https://doi.org/10.1109/CIC50333.2020.00015). URL: <https://doi.org/10.1109/CIC50333.2020.00015>.
- [108] Ruixue Tang, Chao Ma, **Wei Emma Zhang**, Qi Wu, and Xiaokang Yang. “Semantic Equivalent Adversarial Data Augmentation for Visual Question Answering”. In: *Computer Vision - ECCV 2020 - 16th European Conference, Glasgow, UK, August 23-28, 2020, Proceedings, Part XIX*. Ed. by Andrea Vedaldi, Horst Bischof, Thomas Brox, and Jan-Michael Frahm. Vol. 12364. Lecture Notes in Computer Science. Springer, 2020, pp. 437–453. DOI: [10.1007/978-3-030-58529-7_26](https://doi.org/10.1007/978-3-030-58529-7_26). URL: https://doi.org/10.1007/978-3-030-58529-7_26.
- [109] Subhash Sagar, Adnan Mahmood, Quan Z. Sheng, and **Wei Emma Zhang**. “Trust Computational Heuristic for Social Internet of Things: A Machine Learning-based Approach”. In: *2020 IEEE International Conference on Communications, ICC 2020, Dublin, Ireland, June 7-11, 2020*. IEEE, 2020, pp. 1–6. DOI: [10.1109/ICC40277.2020.9148767](https://doi.org/10.1109/ICC40277.2020.9148767). URL: <https://doi.org/10.1109/ICC40277.2020.9148767>.
- [110] Deon Mai and **Wei Emma Zhang**. “Aspect Extraction Using Coreference Resolution and Unsupervised Filtering”. In: *Proceedings of the 1st Conference of the Asia-Pacific Chapter of the Association for Computational Linguistics and the 10th International Joint Conference on Natural Language Processing: Student Research Workshop, ACL/IJCNLP 2021, Suzhou, China, December 4-7, 2020*. Ed. by Boaz Shmueli and Yin Jou Huang. Association for Computational Linguistics, 2020, pp. 124–129. URL: <https://aclanthology.org/2020.aacl-srw.18/>.
- [111] Ahoud Alhazmi, **Wei Emma Zhang**, Quan Z. Sheng, and Abdulwahab Aljubairy. “Analyzing the Sensitivity of Deep Neural Networks for Sentiment Analysis: A Scoring Approach”. In: *2020 International Joint Conference on Neural Networks, IJCNN 2020, Glasgow, United Kingdom, July 19-24, 2020*. IEEE, 2020, pp. 1–7. DOI: [10.1109/IJCNN48605.2020.9207000](https://doi.org/10.1109/IJCNN48605.2020.9207000). URL: <https://doi.org/10.1109/IJCNN48605.2020.9207000>.
- [112] Ahoud Alhazmi, **Wei Emma Zhang**, Quan Z. Sheng, and Abdulwahab Aljubairy. “Are Modern Deep Learning Models for Sentiment Analysis Brittle? An Examination on Part-of-Speech”. In: *2020 International Joint Conference on Neural Networks, IJCNN 2020, Glasgow, United Kingdom, July 19-24, 2020*. IEEE, 2020, pp. 1–7. DOI: [10.1109/IJCNN48605.2020.9207665](https://doi.org/10.1109/IJCNN48605.2020.9207665). URL: <https://doi.org/10.1109/IJCNN48605.2020.9207665>.
- [113] Dai Hoang Tran, Abdulwahab Aljubairy, Munazza Zaib, Quan Z. Sheng, **Wei Emma Zhang**, Nguyen Hoang Tran, and Khoa L. D. Nguyen. “HeteGraph: A Convolutional Framework for Graph Learning in Recommender Systems”. In: *2020 International Joint Conference on Neural Networks, IJCNN 2020, Glasgow, United Kingdom, July 19-24, 2020*. IEEE, 2020, pp. 1–8. DOI: [10.1109/IJCNN48605.2020.9207078](https://doi.org/10.1109/IJCNN48605.2020.9207078). URL: <https://doi.org/10.1109/IJCNN48605.2020.9207078>.
- [114] Vanh Khuyen Nguyen, Quan Z. Sheng, Adnan Mahmood, **Wei Emma Zhang**, Minh-Hieu Phan, and Trung Duc Vo. “Demo Abstract: An Internet of Plants System for Micro Gardens”. In: *19th ACM/IEEE International Conference on Information Processing in Sensor Networks, IPSN 2020, Sydney, Australia, April 21-24, 2020*. IEEE, 2020, pp. 355–356. DOI: [10.1109/IPS48710.2020.000-9](https://doi.org/10.1109/IPS48710.2020.000-9). URL: <https://doi.org/10.1109/IPS48710.2020.000-9>.
- [115] Subhash Sagar, Adnan Mahmood, Michael Sheng, Munazza Zaib, and **Wei Emma Zhang**. “Towards a Machine Learning-driven Trust Evaluation Model for Social Internet of Things: A Time-aware Approach”. In: *MobiQuitous ’20: Computing, Networking and Services, Virtual Event / Darmstadt, Germany, December 7-9, 2020*. Ed. by Max Mühlhäuser, George C. Polyzos, Florian Michahelles, Alejandro Sánchez Guinea, and Lin Wang. ACM, 2020, pp. 283–290. DOI: [10.1145/3448891.3448927](https://doi.org/10.1145/3448891.3448927). URL: <https://doi.org/10.1145/3448891.3448927>.
- [116] Munazza Zaib, Dai Hoang Tran, Subhash Sagar, Adnan Mahmood, **Wei Emma Zhang**, and Quan Z. Sheng. “BERT-CoQAC: BERT-Based Conversational Question Answering in Context”. In: *Parallel Architectures, Algorithms and Programming - 11th International Symposium, PAAP 2020, Shenzhen, China, December 28-30, 2020, Proceedings*. Ed. by Li Ning, Vincent Chau, and Francis C. M. Lau. Vol. 1362. Communications in Computer and Information Science. Springer, 2020, pp. 47–57. DOI: [10.1007/978-981-16-0010-4_5](https://doi.org/10.1007/978-981-16-0010-4_5). URL: https://doi.org/10.1007/978-981-16-0010-4_5.

- [117] Salma Abdalla Hamad, Quan Z. Sheng, Dai Hoang Tran, **Wei Emma Zhang**, and Surya Nepal. “A Behavioural Network Traffic Novelty Detection for the Internet of Things Infrastructures”. In: *Parallel Architectures, Algorithms and Programming - 11th International Symposium, PAAP 2020, Shenzhen, China, December 28-30, 2020, Proceedings*. Ed. by Li Ning, Vincent Chau, and Francis C. M. Lau. Vol. 1362. Communications in Computer and Information Science. Springer, 2020, pp. 174–186. DOI: [10.1007/978-981-16-0010-4_16](https://doi.org/10.1007/978-981-16-0010-4_16). URL: https://doi.org/10.1007/978-981-16-0010-4_16.
- [118] Zawar Hussain, David Waterworth, Murtadha Aldeer, **Wei Emma Zhang**, and Quan Z. Sheng. “Toothbrushing data and analysis of its potential use in human activity recognition applications: dataset”. In: *DATA@SenSys 2020: Proceedings of the Third Workshop on Data: Acquisition To Analysis, Virtual Event, Japan, November 16-19, 2020*. ACM, 2020, pp. 31–34. DOI: [10.1145/3419016.3431489](https://doi.org/10.1145/3419016.3431489). URL: <https://doi.org/10.1145/3419016.3431489>.
- [119] Yuanjiang Cao, Xiacong Chen, Lina Yao, Xianzhi Wang, and **Wei Emma Zhang**. “Adversarial Attacks and Detection on Reinforcement Learning-Based Interactive Recommender Systems”. In: *Proceedings of the 43rd International ACM SIGIR conference on research and development in Information Retrieval, SIGIR 2020, Virtual Event, China, July 25-30, 2020*. Ed. by Jimmy X. Huang, Yi Chang, Xueqi Cheng, Jaap Kamps, Vanessa Murdock, Ji-Rong Wen, and Yiqun Liu. ACM, 2020, pp. 1669–1672. DOI: [10.1145/3397271.3401196](https://doi.org/10.1145/3397271.3401196). URL: <https://doi.org/10.1145/3397271.3401196>.
- [120] Vanh Khuyen Nguyen, Minh-Hieu Phan, **Wei Emma Zhang**, Quan Z. Sheng, and Trung Duc Vo. “A Hybrid Approach for Intrusive Appliance Load Monitoring in Smart Home”. In: *2020 IEEE International Conference on Smart Internet of Things, SmartIoT 2020, Beijing, China, August 14-16, 2020*. IEEE, 2020, pp. 154–160. DOI: [10.1109/SMARTIOT49966.2020.00031](https://doi.org/10.1109/SMARTIOT49966.2020.00031). URL: <https://doi.org/10.1109/SmartIoT49966.2020.00031>.
- [121] Zhizhong Liu, Quan Z. Sheng, **Wei Emma Zhang**, Dianhui Chu, and Xiaofei Xu. “Context-Aware Multi-QoS Prediction for Services in Mobile Edge Computing”. In: *2019 IEEE International Conference on Services Computing, SCC 2019, Milan, Italy, July 8-13, 2019*. Ed. by Elisa Bertino, Carl K. Chang, Peter Chen, Ernesto Damiani, Michael Goul, and Katsunori Oyama. IEEE, 2019, pp. 72–79. DOI: [10.1109/SCC.2019.00024](https://doi.org/10.1109/SCC.2019.00024). URL: <https://doi.org/10.1109/SCC.2019.00024>.
- [122] Adnan Mahmood, **Wei Emma Zhang**, and Quan Z. Sheng. “Overcoming the Bottlenecks in Next-Generation Heterogeneous Vehicular Networks: Is SDN the Optimal Solution?” In: *Proceedings of the Australasian Computer Science Week Multiconference, ACSW 2019, Sydney, NSW, Australia, January 29-31, 2019*. ACM, 2019, 6:1–6:4. DOI: [10.1145/3290688.3290701](https://doi.org/10.1145/3290688.3290701). URL: <https://doi.org/10.1145/3290688.3290701>.
- [123] Sarah Ali Siddiqui, Adnan Mahmood, **Wei Emma Zhang**, and Quan Z. Sheng. “Machine Learning Based Trust Model for Misbehaviour Detection in Internet-of-Vehicles”. In: *Neural Information Processing - 26th International Conference, ICONIP 2019, Sydney, NSW, Australia, December 12-15, 2019, Proceedings, Part IV*. Ed. by Tom Gedeon, Kok Wai Wong, and Minhoo Lee. Vol. 1142. Communications in Computer and Information Science. Springer, 2019, pp. 512–520. DOI: [10.1007/978-3-030-36808-1_56](https://doi.org/10.1007/978-3-030-36808-1_56). URL: https://doi.org/10.1007/978-3-030-36808-1_56.
- [124] Yanjun Shu, **Wei Emma Zhang**, Yanxin Liu, Chunpei Wang, Jian Dong, Zhan Zhang, Dongxi Wen, and Decheng Zuo. “Bottom-Up Teaching Reformation for the Undergraduate Course of Computer Organization and Architecture”. In: *Data Science - 5th International Conference of Pioneering Computer Scientists, Engineers and Educators, ICPCSEE 2019, Guilin, China, September 20-23, 2019, Proceedings, Part II*. Ed. by Rui Mao, Hongzhi Wang, Xiaolan Xie, and Zeguang Lu. Vol. 1059. Communications in Computer and Information Science. Springer, 2019, pp. 303–312. DOI: [10.1007/978-981-15-0121-0_23](https://doi.org/10.1007/978-981-15-0121-0_23). URL: https://doi.org/10.1007/978-981-15-0121-0_23.
- [125] Vanh Khuyen Nguyen, **Wei Emma Zhang**, Khoa Le, Adnan Mahmood, and Quan Z. Sheng. “Demo Abstract: An End-to-End Real-Time Efficient System for Smart Energy Monitoring”. In: *IEEE INFOCOM 2019 - IEEE Conference on Computer Communications Workshops, INFOCOM Workshops 2019, Paris, France, April 29 - May 2, 2019*. IEEE, 2019, pp. 957–958. DOI: [10.1109/INFOCOMW.2019.8845260](https://doi.org/10.1109/INFOCOMW.2019.8845260). URL: <https://doi.org/10.1109/INFOCOMW.2019.8845260>.

- [126] Sarah Ali Siddiqui, Adnan Mahmood, **Wei Emma Zhang**, and Quan Z. Sheng. “Poster: A Machine Learning based Hybrid Trust Management Heuristic for Vehicular Ad hoc Networks”. In: *The 25th Annual International Conference on Mobile Computing and Networking, MobiCom 2019, Los Cabos, Mexico, October 21-25, 2019*. Ed. by Stephen A. Brewster, Geraldine Fitzpatrick, Anna L. Cox, and Vassilis Kostakos. ACM, 2019, 95:1–95:3. DOI: [10.1145/3300061.3343404](https://doi.org/10.1145/3300061.3343404). URL: <https://doi.org/10.1145/3300061.3343404>.
- [127] Zawar Hussain, Subhash Sagar, **Wei Emma Zhang**, and Quan Z. Sheng. “A cost-effective and non-invasive system for sleep and vital signs monitoring using passive RFID tags”. In: *MobiQ-uitous 2019, Proceedings of the 16th EAI International Conference on Mobile and Ubiquitous Systems: Computing, Networking and Services, Houston, Texas, USA, November 12-14, 2019*. Ed. by H. Vincent Poor, Zhu Han, Dario Pompili, Zhi Sun, and Miao Pan. ACM, 2019, pp. 153–161. DOI: [10.1145/3360774.3360797](https://doi.org/10.1145/3360774.3360797). URL: <https://doi.org/10.1145/3360774.3360797>.
- [128] Adnan Mahmood, Sarah Ali Siddiqui, **Wei Emma Zhang**, and Quan Z. Sheng. “A Hybrid Trust Management Model for Secure and Resource Efficient Vehicular Ad hoc Networks”. In: *20th International Conference on Parallel and Distributed Computing, Applications and Technologies, PDCAT 2019, Gold Coast, Australia, December 5-7, 2019*. IEEE, 2019, pp. 154–159. DOI: [10.1109/PDCAT46702.2019.00038](https://doi.org/10.1109/PDCAT46702.2019.00038). URL: <https://doi.org/10.1109/PDCAT46702.2019.00038>.
- [129] Adnan Mahmood, Bernard Butler, **Wei Emma Zhang**, Quan Z. Sheng, and Sarah Ali Siddiqui. “A Hybrid Trust Management Heuristic for VANETs”. In: *IEEE International Conference on Pervasive Computing and Communications Workshops, PerCom Workshops 2019, Kyoto, Japan, March 11-15, 2019*. IEEE, 2019, pp. 748–752. DOI: [10.1109/PERCOMW.2019.8730675](https://doi.org/10.1109/PERCOMW.2019.8730675). URL: <https://doi.org/10.1109/PERCOMW.2019.8730675>.
- [130] Salma Abdalla Hamad, **Wei Emma Zhang**, Quan Z. Sheng, and Surya Nepal. “IoT Device Identification via Network-Flow Based Fingerprinting and Learning”. In: *18th IEEE International Conference On Trust, Security And Privacy In Computing And Communications / 13th IEEE International Conference On Big Data Science And Engineering, TrustCom/BigDataSE 2019, Rotorua, New Zealand, August 5-8, 2019*. IEEE, 2019, pp. 103–111. DOI: [10.1109/TRUSTCOM/BIGDATASE.2019.00023](https://doi.org/10.1109/TRUSTCOM/BIGDATASE.2019.00023). URL: <https://doi.org/10.1109/TrustCom/BigDataSE.2019.00023>.
- [131] Dai Hoang Tran, Zawar Hussain, **Wei Emma Zhang**, Khoa L. D. Nguyen, Nguyen Hoang Tran, and Quan Z. Sheng. “Deep Autoencoder for Recommender Systems: Parameter Influence Analysis”. In: *Australasian Conference on Information Systems, ACIS 2018, Sydney, NSW, Australia, December 3-5, 2018*. 2018, p. 66. URL: <https://aisel.aisnet.org/acis2018/66>.
- [132] **Wei Emma Zhang**, Quan Z. Sheng, Zhejun Tang, and Wenjie Ruan. “Related or Duplicate: Distinguishing Similar CQA Questions via Convolutional Neural Networks”. In: *The 41st International ACM SIGIR Conference on Research & Development in Information Retrieval, SIGIR 2018, Ann Arbor, MI, USA, July 08-12, 2018*. Ed. by Kevyn Collins-Thompson, Qiaozhu Mei, Brian D. Davison, Yiqun Liu, and Emine Yilmaz. ACM, 2018, pp. 1153–1156. DOI: [10.1145/3209978.3210110](https://doi.org/10.1145/3209978.3210110). URL: <https://doi.org/10.1145/3209978.3210110>.
- [133] Vanh Khuyen Nguyen, **Wei Emma Zhang**, and Quan Z. Sheng. “Identifying Price Index Classes for Electricity Consumers via Dynamic Gradient Boosting”. In: *Web Information Systems Engineering - WISE 2018 - 19th International Conference, Dubai, United Arab Emirates, November 12-15, 2018, Proceedings, Part II*. Ed. by Hakim Hacid, Wojciech Cellary, Hua Wang, Hye-Young Paik, and Rui Zhou. Vol. 11234. Lecture Notes in Computer Science. Springer, 2018, pp. 472–486. DOI: [10.1007/978-3-030-02925-8_33](https://doi.org/10.1007/978-3-030-02925-8_33). URL: https://doi.org/10.1007/978-3-030-02925-8_33.
- [134] **Wei Emma Zhang**, Quan Z. Sheng, Yanjun Shu, and Vanh Khuyen Nguyen. “Feature Analysis for Duplicate Detection in Programming QA Communities”. In: *Advanced Data Mining and Applications - 13th International Conference, ADMA 2017, Singapore, November 5-6, 2017, Proceedings*. Ed. by Gao Cong, Wen-Chih Peng, **Wei Emma Zhang**, Chengliang Li, and Aixin Sun. Vol. 10604. Lecture Notes in Computer Science. Springer, 2017, pp. 623–638. DOI: [10.1007/978-3-319-69179-4_44](https://doi.org/10.1007/978-3-319-69179-4_44). URL: https://doi.org/10.1007/978-3-319-69179-4_44.

- [135] Vanh Khuyen Nguyen, **Wei Emma Zhang**, Quan Z. Sheng, and Jason Merefield. “Mining Load Profile Patterns for Australian Electricity Consumers”. In: *Advanced Data Mining and Applications - 13th International Conference, ADMA 2017, Singapore, November 5-6, 2017, Proceedings*. Ed. by Gao Cong, Wen-Chih Peng, **Wei Emma Zhang**, Chengliang Li, and Aixin Sun. Vol. 10604. Lecture Notes in Computer Science. Springer, 2017, pp. 781–793. DOI: [10.1007/978-3-319-69179-4_55](https://doi.org/10.1007/978-3-319-69179-4_55). URL: https://doi.org/10.1007/978-3-319-69179-4_55.
- [136] Yihong Zhang, Claudia Szabo, Quan Z. Sheng, **Wei Emma Zhang**, and Yongrui Qin. “Identifying Domains and Concepts in Short Texts via Partial Taxonomy and Unlabeled Data”. In: *Advanced Information Systems Engineering - 29th International Conference, CAiSE 2017, Essen, Germany, June 12-16, 2017, Proceedings*. Ed. by Eric Dubois and Klaus Pohl. Vol. 10253. Lecture Notes in Computer Science. Springer, 2017, pp. 127–143. DOI: [10.1007/978-3-319-59536-8_9](https://doi.org/10.1007/978-3-319-59536-8_9). URL: https://doi.org/10.1007/978-3-319-59536-8_9.
- [137] Wenjie Ruan, Peipei Xu, Quan Z. Sheng, Nickolas J. G. Falkner, Xue Li, and **Wei Emma Zhang**. “Recovering Missing Values from Corrupted Spatio-Temporal Sensory Data via Robust Low-Rank Tensor Completion”. In: *Database Systems for Advanced Applications - 22nd International Conference, DASFAA 2017, Suzhou, China, March 27-30, 2017, Proceedings, Part I*. Ed. by K. Selçuk Candan, Lei Chen, Torben Bach Pedersen, Lijun Chang, and Wen Hua. Vol. 10177. Lecture Notes in Computer Science. Springer, 2017, pp. 607–622. DOI: [10.1007/978-3-319-55753-3_38](https://doi.org/10.1007/978-3-319-55753-3_38). URL: https://doi.org/10.1007/978-3-319-55753-3_38.
- [138] Yanjun Shu, Decheng Zuo, Hongwei Liu, Quan Z. Sheng, **Wei Emma Zhang**, and Jian Yang. “A Tree-Based Reliability Analysis for Fault-Tolerant Web Services Composition”. In: *Service-Oriented Computing - 15th International Conference, ICSOC 2017, Malaga, Spain, November 13-16, 2017, Proceedings*. Ed. by E. Michael Maximilien, Antonio Vallecillo, Jianmin Wang, and Marc Oriol. Vol. 10601. Lecture Notes in Computer Science. Springer, 2017, pp. 481–489. DOI: [10.1007/978-3-319-69035-3_35](https://doi.org/10.1007/978-3-319-69035-3_35). URL: https://doi.org/10.1007/978-3-319-69035-3_35.
- [139] **Wei Emma Zhang**, Quan Z. Sheng, Jey Han Lau, and Ermyas Abebe. “Detecting Duplicate Posts in Programming QA Communities via Latent Semantics and Association Rules”. In: *Proceedings of the 26th International Conference on World Wide Web, WWW 2017, Perth, Australia, April 3-7, 2017*. Ed. by Rick Barrett, Rick Cummings, Eugene Agichtein, and Evgeniy Gabrilovich. ACM, 2017, pp. 1221–1229. DOI: [10.1145/3038912.3052701](https://doi.org/10.1145/3038912.3052701). URL: <https://doi.org/10.1145/3038912.3052701>.
- [140] **Wei Emma Zhang**, Quan Z. Sheng, Ermyas Abebe, Muhammad Ali Babar, and Andi Zhou. “Mining Source Code Topics Through Topic Model and Words Embedding”. In: *Advanced Data Mining and Applications - 12th International Conference, ADMA 2016, Gold Coast, QLD, Australia, December 12-15, 2016, Proceedings*. Ed. by Jinyan Li, Xue Li, Shuliang Wang, Jianxin Li, and Quan Z. Sheng. Vol. 10086. Lecture Notes in Computer Science. 2016, pp. 664–676. DOI: [10.1007/978-3-319-49586-6_47](https://doi.org/10.1007/978-3-319-49586-6_47). URL: https://doi.org/10.1007/978-3-319-49586-6_47.
- [141] Abdullah Alfazi, Quan Z. Sheng, **Wei Emma Zhang**, Lina Yao, and Talal H. Noor. “Identification as a Service: Large-Scale Cloud Service Discovery over the World Wide Web”. In: *2016 IEEE International Congress on Big Data, San Francisco, CA, USA, June 27 - July 2, 2016*. Ed. by Calton Pu, Geoffrey C. Fox, and Ernesto Damiani. IEEE Computer Society, 2016, pp. 485–492. DOI: [10.1109/BIGDATACONGRESS.2016.74](https://doi.org/10.1109/BIGDATACONGRESS.2016.74). URL: <https://doi.org/10.1109/BIGDATACONGRESS.2016.74>.
- [142] **Wei Emma Zhang**, Mingkui Tan, Quan Z. Sheng, Lina Yao, and Qinfeng Shi. “Efficient Orthogonal Non-negative Matrix Factorization over Stiefel Manifold”. In: *Proceedings of the 25th ACM International Conference on Information and Knowledge Management, CIKM 2016, Indianapolis, IN, USA, October 24-28, 2016*. Ed. by Snehasis Mukhopadhyay, ChengXiang Zhai, Elisa Bertino, Fabio Crestani, Javed Mostafa, Jie Tang, Luo Si, Xiaofang Zhou, Yi Chang, Yunyao Li, and Parikshit Sondhi. ACM, 2016, pp. 1743–1752. DOI: [10.1145/2983323.2983761](https://doi.org/10.1145/2983323.2983761). URL: <https://doi.org/10.1145/2983323.2983761>.

- [143] Wenjie Ruan, Quan Z. Sheng, Peipei Xu, Nguyen Khoi Tran, Nickolas J. G. Falkner, Xue Li, and **Wei Emma Zhang**. “Forecasting Seasonal Time Series Using Weighted Gradient RBF Network based Autoregressive Model”. In: *Proceedings of the 25th ACM International Conference on Information and Knowledge Management, CIKM 2016, Indianapolis, IN, USA, October 24-28, 2016*. Ed. by Snehasis Mukhopadhyay, ChengXiang Zhai, Elisa Bertino, Fabio Crestani, Javed Mostafa, Jie Tang, Luo Si, Xiaofang Zhou, Yi Chang, Yunyao Li, and Parikshit Sondhi. ACM, 2016, pp. 2021–2024. DOI: [10.1145/2983323.2983899](https://doi.org/10.1145/2983323.2983899). URL: <https://doi.org/10.1145/2983323.2983899>.
- [144] Wenjie Ruan, Peipei Xu, Quan Z. Sheng, Nguyen Khoi Tran, Nickolas J. G. Falkner, Xue Li, and **Wei Emma Zhang**. “When Sensor Meets Tensor: Filling Missing Sensor Values Through a Tensor Approach”. In: *Proceedings of the 25th ACM International Conference on Information and Knowledge Management, CIKM 2016, Indianapolis, IN, USA, October 24-28, 2016*. Ed. by Snehasis Mukhopadhyay, ChengXiang Zhai, Elisa Bertino, Fabio Crestani, Javed Mostafa, Jie Tang, Luo Si, Xiaofang Zhou, Yi Chang, Yunyao Li, and Parikshit Sondhi. ACM, 2016, pp. 2025–2028. DOI: [10.1145/2983323.2983900](https://doi.org/10.1145/2983323.2983900). URL: <https://doi.org/10.1145/2983323.2983900>.
- [145] **Wei Emma Zhang**, Quan Z. Sheng, Yongrui Qin, Lina Yao, Ali Shemshadi, and Kerry L. Taylor. “SECF: improving SPARQL querying performance with proactive fetching and caching”. In: *Proceedings of the 31st Annual ACM Symposium on Applied Computing, Pisa, Italy, April 4-8, 2016*. Ed. by Sascha Ossowski. ACM, 2016, pp. 362–367. DOI: [10.1145/2851613.2851846](https://doi.org/10.1145/2851613.2851846). URL: <https://doi.org/10.1145/2851613.2851846>.
- [146] **Wei Emma Zhang**, Ermyas Abebe, Quan Z. Sheng, and Kerry L. Taylor. “Towards Building Open Knowledge Base From Programming Question-Answering Communities”. In: *Proceedings of the ISWC 2016 Posters & Demonstrations Track co-located with 15th International Semantic Web Conference (ISWC 2016), Kobe, Japan, October 19, 2016*. Ed. by Takahiro Kawamura and Heiko Paulheim. Vol. 1690. CEUR Workshop Proceedings. CEUR-WS.org, 2016. URL: <https://ceur-ws.org/Vol-1690/paper36.pdf>.
- [147] **Wei Emma Zhang**, Quan Z. Sheng, Kerry L. Taylor, Yongrui Qin, and Lina Yao. “Learning-Based SPARQL Query Performance Prediction”. In: *Web Information Systems Engineering - WISE 2016 - 17th International Conference, Shanghai, China, November 8-10, 2016, Proceedings, Part I*. Ed. by Wojciech Cellary, Mohamed F. Mokbel, Jianmin Wang, Hua Wang, Rui Zhou, and Yanchun Zhang. Vol. 10041. Lecture Notes in Computer Science. 2016, pp. 313–327. DOI: [10.1007/978-3-319-48740-3_23](https://doi.org/10.1007/978-3-319-48740-3_23). URL: https://doi.org/10.1007/978-3-319-48740-3_23.
- [148] **Wei Emma Zhang**, Quan Z. Sheng, Kerry Taylor, and Yongrui Qin. “Identifying and Caching Hot Triples for Efficient RDF Query Processing”. In: *Database Systems for Advanced Applications - 20th International Conference, DASFAA 2015, Hanoi, Vietnam, April 20-23, 2015, Proceedings, Part II*. Ed. by Matthias Renz, Cyrus Shahabi, Xiaofang Zhou, and Muhammad Aamir Cheema. Vol. 9050. Lecture Notes in Computer Science. Springer, 2015, pp. 259–274. DOI: [10.1007/978-3-319-18123-3_16](https://doi.org/10.1007/978-3-319-18123-3_16). URL: https://doi.org/10.1007/978-3-319-18123-3_16.
- [149] Yongrui Qin, Quan Z. Sheng, and **Wei Emma Zhang**. “SIEF: Efficiently Answering Distance Queries for Failure Prone Graphs”. In: *Proceedings of the 18th International Conference on Extending Database Technology, EDBT 2015, Brussels, Belgium, March 23-27, 2015*. Ed. by Gustavo Alonso, Floris Geerts, Lucian Popa, Pablo Barceló, Jens Teubner, Martín Ugarte, Jan Van den Bussche, and Jan Paredaens. OpenProceedings.org, 2015, pp. 145–156. DOI: [10.5441/002/EDBT.2015.14](https://doi.org/10.5441/002/EDBT.2015.14). URL: <https://doi.org/10.5441/002/edbt.2015.14>.
- [150] Yongrui Qin, Hua Wang, Ji Zhang, Xiaohui Tao, **Wei Emma Zhang**, Kerry L. Taylor, and Quan Z. Sheng. “Efficient Algorithms for Scheduling XML Data in a Mobile Wireless Broadcast Environment”. In: *21st IEEE International Conference on Parallel and Distributed Systems, ICPADS 2015, Melbourne, Australia, December 14-17, 2015*. IEEE Computer Society, 2015, pp. 725–732. DOI: [10.1109/ICPADS.2015.96](https://doi.org/10.1109/ICPADS.2015.96). URL: <https://doi.org/10.1109/ICPADS.2015.96>.
- [151] Lina Yao, Xianzhi Wang, Quan Z. Sheng, Wenjie Ruan, and **Wei Zhang**. “Service Recommendation for Mashup Composition with Implicit Correlation Regularization”. In: *2015 IEEE International Conference on Web Services, ICWS 2015, New York, NY, USA, June 27 - July 2, 2015*. Ed. by John A. Miller and Hong Zhu. IEEE Computer Society, 2015, pp. 217–224. DOI: [10.1109/ICWS.2015.38](https://doi.org/10.1109/ICWS.2015.38). URL: <https://doi.org/10.1109/ICWS.2015.38>.

- [152] Yongrui Qin, Quan Z. Sheng, Nickolas J. G. Falkner, **Wei Emma Zhang**, and Hua Wang. “Indexing Linked Data in a Wireless Broadcast System with 3D Hilbert Space-Filling Curves”. In: *Proceedings of the 23rd ACM International Conference on Conference on Information and Knowledge Management, CIKM 2014, Shanghai, China, November 3-7, 2014*. Ed. by Jianzhong Li, Xiaoyang Sean Wang, Minos N. Garofalakis, Ian Soboroff, Torsten Suel, and Min Wang. ACM, 2014, pp. 1775–1778. DOI: [10.1145/2661829.2661890](https://doi.org/10.1145/2661829.2661890). URL: <https://doi.org/10.1145/2661829.2661890>.
- [153] **Wei Emma Zhang**. “Graph-based large scale RDF data compression”. In: *The 37th International ACM SIGIR Conference on Research and Development in Information Retrieval, SIGIR '14, Gold Coast , QLD, Australia - July 06 - 11, 2014*. Ed. by Shlomo Geva, Andrew Trotman, Peter Bruza, Charles L. A. Clarke, and Kalervo Järvelin. ACM, 2014, p. 1276. DOI: [10.1145/2600428.2610377](https://doi.org/10.1145/2600428.2610377). URL: <https://doi.org/10.1145/2600428.2610377>.
- [154] Ali Shemshadi, Quan Z. Sheng, and **Wei Emma Zhang**. “A Decremental Search Approach for Large Scale Dynamic Ridesharing”. In: *Web Information Systems Engineering - WISE 2014 - 15th International Conference, Thessaloniki, Greece, October 12-14, 2014, Proceedings, Part I*. Ed. by Boualem Benatallah, Azer Bestavros, Yannis Manolopoulos, Athena Vakali, and Yanchun Zhang. Vol. 8786. Lecture Notes in Computer Science. Springer, 2014, pp. 202–217. DOI: [10.1007/978-3-319-11749-2_16](https://doi.org/10.1007/978-3-319-11749-2_16). URL: https://doi.org/10.1007/978-3-319-11749-2_16.