

# Sen Wang

LECTURER

SCHOOL OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING

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## Education

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PH.D. OF COMPUTER SCIENCE	The University of Queensland	Australia	May 2014
MASTER OF COMPUTER SCIENCE	Jilin University	China	August 2009
BACHELOR OF COMPUTER SCIENCE	Liaoning Shihua University	China	July 2005

## Working Experience

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<b>Lecturer (Continuing)</b>		Jan 2019 - PRESENT
SCHOOL OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING, THE UNIVERSITY OF QUEENSLAND		Brisbane, Australia
<b>Lecturer (Continuing)</b>		Jul 2016 - Jan 2019
SCHOOL OF INFORMATION AND COMMUNICATION, GRIFFITH UNIVERSITY		Gold Coast, Australia
<b>Postdoctoral Research Fellow</b>		Jan 2014 - Jul 2016
SCHOOL OF INFORMATION TECHNOLOGY AND ELECTRICAL ENGINEERING, THE UNIVERSITY OF QUEENSLAND		Brisbane, Australia

## Teaching

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Trimester 2, 2018	<b>1804ICT - Data Management</b>	Rating: SEC/SET: 4.57/4.88 out of 5
Trimester 2, 2018	<b>3804ICT - Data Mining</b>	Rating: SEC/SET: 4.75/4.8 out of 5
Trimester 3, 2017	<b>1804ICT - Data Management (Intensive)</b>	Rating: SEC/SET: 4.35/4.48 out of 5
Trimester 3, 2017	<b>7003ICT - Database Design (Intensive)</b>	Rating: SEC/SET: 4.8/4.8 out of 5
Trimester 2, 2017	<b>1804ICT - Data Management</b>	Rating: SEC/SET: 4.5/4.82 out of 5
Trimester 2, 2016	<b>7205ICT - Advanced Databases</b>	Rating: SEC: 4.9 out of 5
Semester 1, 2016	<b>INFS3202 - Web Information System (Co-teaching)</b>	Rating: 3.8

## Research Interest

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<b>Machine Learning</b>	Deep Learning, Multi-view and Multi-label Learning Feature Selection, Semi-supervised Learning, Reinforcement Learning, etc.
<b>Data Mining</b>	Healthcare Data Analytics, Medical Knowledge Graph Mining Sentiment Analysis on Social Media
<b>Computer Vision</b>	Video and Image Understanding (Human Action Recognition), Multimedia Analysis

## Grants

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Collaborative Lab of Health Informatics with Neusoft ( <b>\$977,734</b> )	Neusoft Co	Jul. 2018 - Dec. 2018
Industry Collaborative Grant ( <b>\$5,000</b> )	Tonwo Clinic Technology	Jul. 2018 - Dec. 2018
GSC Collaborative Grant ( <b>\$10,000</b> )	Griffith University	Jul. 2018 - Dec. 2018
GSC Dean Equipment Grant ( <b>\$13,500</b> )	Griffith University	May 2018
General Research Support Grant ( <b>\$10,000</b> )	Griffith University	Aug. 2017 - Dec. 2018
GSC Early Career Research Grant ( <b>\$15,000</b> )	Griffith University	Aug. 2017 - Jun 2018
Industry Collaborative Grant ( <b>\$5,000</b> )	Gold Coast University Hospital	Jul. 2017 - Jun 2018

## CONFERENCE

- Kaixuan Chen, Lina Yao, Dalin Zhang, Xiaojun Chang, Guodong Long and **Sen Wang**. Distributionally Robust Semi-supervised Learning for People-centric Sensing. The 33rd AAAI Conference on Artificial Intelligence (AAAI-19), Honolulu, Hawaii, USA, January 27 - February 1, 2019. (**CORE A\***)
- Weitong Chen, **Sen Wang**, Guodong Long, Lina Yao, Quan Zheng Sheng, and Xue Li. Dynamic Illness Severity Prediction via Multi-task RNNs for Intensive Care Unit. IEEE International Conference on Data Mining (ICDM 2018), Singapore, November 17-20, 2018. (**CORE A\***)
- Forough Boroujeni, **Sen Wang**, Zhihui Li, Nicholas West, Bella Stantic, Lina Yao, and Guodong Long. Trace Ratio Optimization with Feature Correlation for Mining Multiclass Discriminant Analysis, The 32nd AAAI Conference on Artificial Intelligence (AAAI-18), New Orleans, Louisiana, USA, - 7 February, 2018. (**CORE A\***)
- Weitong Chen, **Sen Wang**, Xiang Zhang, Lina Yao, Lin Yue, Buyue Qian, Xue Li. EEG-based Motion Intention Recognition via Multi-task RNNs. SIAM International Conference on Data Mining (SDM18), San Diego, USA, May 3 - 5, 2018. (**CORE A**)
- Dalin Zhang, Lina Yao, **Sen Wang**, Kaixuan Chen, Zheng Yang and Boualem Benatallah. Fuzzy Integral Optimization with Deep Q-Network for EEG-based Intention Recognition. The 22nd Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD 2018), Melbourne, Australia, June 3 - 6, 2018. (**CORE A**)
- Xiang Zhang, Lina Yao, Chaoran Huang, **Sen Wang**, Mingkui Tan, Guodong Long, Can Wang, Multi-modality Sensor Data Classification with Selective Attention. The 27th International Joint Conference on Artificial Intelligence (IJCAI 2018), July 13-19 2018, Stockholm, Sweden. (**CORE A\***)
- Shuai Zhang, Lina Yao, Aixin Sun, **Sen Wang**, Guodong Long and Manqing Dong, NeuRec: On Nonlinear Transformation for Personalized Ranking. The 27th International Joint Conference on Artificial Intelligence(IJCAI 2018), July 13-19 2018, Stockholm, Sweden. (**CORE A\***)
- Tao Shen, Tianyi Zhou, Guodong Long, Jing Jiang, **Sen Wang**, Chengqi Zhang. Reinforced Self Attention Network: a Hybrid of Hard and Soft Attention or Sequence Modeling. The 27th International Joint Conference on Artificial Intelligence (IJCAI 2018), July 13-19 2018, Stockholm, Sweden. (**CORE A\***)
- Yunwei Zhao, Can Wang, Chi-Hung Chi, Kwok-Yan Lam, **Sen Wang**. A Comparative Study of Transactional and Semantic Approaches for Predicting Cascades n Twitter. The 27th International Joint Conference on Artificial Intelligence (IJCAI 2018), July 13-19 2018, Stockholm, Sweden. (**CORE A\***)
- Dalin Zhang, Lina Yao, Xiang Zhang, **Sen Wang**, Weitong Chen and Robert Boots. Cascade and Parallel Convolutional Recurrent Neural Networks on EEG-based Intention Recognition for Brain Computer Interface. The 32nd AAAI Conference on Artificial Intelligence (AAAI-18), New Orleans, Louisiana, SA, 2 - 7 February, 2018. (**CORE A\***)
- Shuai Zhang, Lina Yao, Xiwei Xu, **Sen Wang** and Liming Zhu. Hybrid Collaborative Recommendation via Semi-AutoEncoder. The 24th International Conference On Neural Information Processing (ICONIP 2017). Guangzhou, China, November 14-18, 2017. (**CORE A**)
- Xiaowei Xue, Feiping Nie, **Sen Wang**, Xiaojun Chang, Bela Stantic and Min Yao, Multi-view Correlated Feature Learning by Uncovering Shared component, The 26th International Joint Conference on Artificial Intelligence (IJCAI 2017), pp. 2810-2816, 2017. (**CORE A\***)
- Chi Thang Duong, Quoc Viet Hung Nguyen, **Sen Wang** and Bela Stantic. Provenance-based Rumor Detection, Australasian Database Conference, 2017, doi:10.1007/978-3-319-68155-910:
- Forough Rezaei Boroujeni, Bela Stantic and **Sen Wang**. An Embedded Feature Selection Framework for Hybrid Data, Australasian Database Conference, 2017, doi:10.1007/978-3-319-68155-911:
- Yazhou Hao, Qinghua Zheng, YangYang Lan, Yufei Li, Meng Wang, **Sen Wang**, Chen Li. Improving Chinese Sentiment Analysis via Segmentation-Based Representation Using Parallel CNN. ADMA 2017: 668-680. (**CORE B**)

- Meng Wang, Jiaheng Zhang, Jun Liu, Wei Hu, **Sen Wang**, Xue Li, Wenqiang Liu. PDD Graph: Bridging Electronic Medical Records and Biomedical Knowledge Graphs via Entity Linking. International Semantic Web Conference (ISWC) (2) 2017: 219-227. (**CORE A**)
- **Sen Wang**, Feiping Nie, Xiaojun Chang, Xue Li, Quan Z. Sheng, and Lina Yao, Uncovering Locally Discriminative Structure for Feature Analysis. The European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML-PKDD 2016). Riva del Garda, Italy, September 19-23, 2016. (**CORE A**)
- Min Xie, Hongzhi Yin, Fanjiang Xu, Hao Wang, Weitong Chen and **Sen Wang**. Learning Graph-based POI Embedding for Location-based Recommendation. The 5th ACM International Conference on Information and Knowledge Management (CIKM-16), Hyatt Hotel, Indianapolis, United States, 2016. (**CORE A**)
- Lina Yao, Feiping Nie, Quan Z. Sheng, Tao Gu, Xue Li, **Sen Wang**, Learning from Less for Better: Semi-Supervised Activity Recognition via Shared Structure Discovery. The 2016 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp 2016). Heidelberg, Germany, September 12-16, 2016. (**CORE A\***)
- Chandra Utomo, Xue Li, **Sen Wang**. Classification Based on Compressive Multivariate Time Series. Australasian Database Conference, pp. 204-214. Springer International Publishing, 2016.
- Lina Yao, Quan Z. Sheng, Xue Li, **Sen Wang**, and Wan Zou. Online Activity Recognition via Dictionary-based Sparse Representation of RFID Sensing Data. International Conference on Data Mining (ICDM), pp. 1087-1092. IEEE, 2015. (**CORE A\***)
- **Sen Wang**, Feiping Nie, Xiaojun Chang, Lina Yao, Xue Li, and Quan Z. Sheng. Unsupervised Feature Analysis with Class Margin Optimization. ECML-PKDD, pp. 383-398, 2015. (**CORE A**)
- Lina Yao, Quan Z. Sheng, Wenjie Ruan, Xue Li, **Sen Wang**, Zhi Yang and Wan Zou. Unobstrusive Posture Recognition via Online Learning of Multi-Dimensional RFID Received Signal Strength. The 21st IEEE International Conference on Parallel and Distributed Systems (ICPADS 2015) , Melbourne, Australia, December 14 - 17, 2015. (**CORE B**)
- Ling Chen, Xue Li, **Sen Wang**, Hsiao-Yun Hu, Nicole Huang, Quanzheng Sheng, and Mohamed Sharaf. Mining Personal Health Index from Annual Geriatric Medical Examinations. In 2014 IEEE International Conference on Data Mining (ICDM), pp. 761-766. 2014. (**CORE A\***)
- Xiaojun Chang, Haoquan Shen, **Sen Wang**, Jiajun Liu, Xue Li. Semi-supervised Feature Analysis for Multimedia Annotation by Mining Label Correlation. In PAKDD, vol. 8444, pp. 74-85, 2014. (**CORE A**)
- **Sen Wang**, Zhongwen Xu, Yi Yang, Xue Li, Chaoyi Pang, Alexander G. Hauptmann. Fall Detection in Multi-Camera Surveillance Videos: Experimentations and Observations. In Proceeding of ACM International Conference on Multimedia Workshop on Multimedia Indexing and information Retrieval for Healthcare, Spain, 2013, 33-38. (**CORE A\***)
- **Sen Wang**, Yi Yang, Zhigang Ma, Xue Li, Chaoyi Pang, Alexander G Hauptmann. Action Recognition by Exploring Data Distribution and Feature Correlation. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), USA, 2012, 1370-1377. (**ERA A, CORE A\***)
- Sayan Unankard, Ling Chen, Peng Li, **Sen Wang**, Zi Huang, Mohamed A. Sharaf, Xue Li. On the Prediction of Retweeting Activities in Social Networks A Report on WISE 2012 Challenge. In Proceedings of Web Information Systems Engineering (WISE), Cyprus, 2012, 7651: 744-754. (**CORE A**)

## JOURNAL

- Dalin Zhang, Lina Yao, Kaixuan, **Sen Wang**, Xiaojun Chang, Yunhao Liu. Making Sense of Spatio-Temporal Preserving Representations for EEG-based Human Intention Recognition. IEEE Transactions on Cybernetics (TCYB), 2019 (to appear, **CORE A\***).
- Meng Wang, Weitong Chen, **Sen Wang**, Jun Liu, Xue Li, Bela Stantic. Answering why-not questions on semantic multimedia queries. Multimedia Tools Applications. 77(3): 3405-3429 (2018) (**IF: 1.541**)
- Xiaowei Xue, Feiping Nie, Zihui Li, **Sen Wang**, Xue Li, and Min Yao. A Multiview Learning Framework With a Linear Computational Cost. IEEE Transactions on cybernetics (TCYB), vol. 48, no.8, 2018. (**IF: 8.803**)

- Lina Yao, Quan Z. Sheng, Xue Li, Tao Gu, Mingkui Tan, Xianzhi Wang, **Sen Wang** and Wenjie Ruan. Compressive Representation for Device-Free Activity Recognition with Passive RFID Signal Strength. *IEEE Transactions on Mobile Computing (TMC)*, 17, no. 2 (2018): 293-306. **(IF: 4.098)**
- Lina Yao, Quan Z. Sheng, Xianzhi Wang, Shengrui Wang, Xue Li, **Sen Wang**. Collaborative Text Categorization via Exploiting Sparse Coefficients. *World Wide Web* 21, no. 2 (2018): 373-394. **(IF: 1.829)**
- Xiaowei Zhao, Feiping Nie, **Sen Wang**, Jun Guo, Pengfei Xu, and Xiaojiang Chen. Unsupervised 2D dimensionality reduction with adaptive structure learning. *Neural computation* 29, no. 5 (2017): 1352-1374. **(IF: 2.207)**
- **Sen Wang**, Xue Li, Xiaojun Chang, Lina Yao, Quan Z. Sheng and Guodong Long, Learning Multiple Diagnosis Codes for ICU Patients with Local Disease Correlation Mining. *ACM Transactions on Knowledge Discovery (TKDD)*, vol. 28, no. 12, pp. 3191-3202, Dec. 1 2016. **(IF: 1.895)**
- **Sen Wang**, Xiaojun Chang, Xue Li, Guodong Long, Lina Yao, and Quan Z. Sheng. Diagnosis Code Assignment Using Sparsity-based Disease Correlation Embedding. *IEEE Transactions on Knowledge Discovery and Engineering (TKDE)*, Vol 28, No 12, pp 3191-3202, 2016. **(IF: 3.438)**
- Xiaojun Chang, Feiping Nie, **Sen Wang**, Yi Yang, Xiaofang Zhou and Chengqi Zhang. Compound Rank-k Projections for Bilinear Analysis. *IEEE Transactions on Neural Networks and Learning Systems (TNNLS)*, vol. 27, no. 7, pp. 1502-1513, July 2016. **(IF: 7.982)**
- **Sen Wang**, Pingbo Pan, Guodong Long, Weitong Chen, Xue Li, Quan Z. Sheng, Compact Representation for Large-Scale Unconstrained Video Analysis. *World Wide Web*, 19, no. 2 (2016): 231-246. **(IF: 1.829)**
- Lina Yao, Quan Z. Sheng, Anne. H. H. Ngu, Byron Gao, Xue Li and **Sen Wang**. Multi-Label Classification via Learning a Unified Object-Label Graph with Sparse Representation. *World Wide Web*, 2015, pp.1-25. **(IF: 1.829)**
- **Sen Wang**, Xiaojun Chang, Xue Li, Quan Z. Sheng, and Weitong Chen. Multi-task Support Vector Machines for Feature Selection with Shared Knowledge Discovery. *Signal Processing* (2014), 120, pp.746-753. **(IF: 3.470)**
- Yan Yan, Gaowen Liu, **Sen Wang**, Jian Zhang, Kai Zheng. Graph-based Clustering and Ranking for Diversified Image Search. *Multimedia Systems* (2014): p. 1-12. **(IF: 2.207)**
- Xin Zhao, Xue Li, Chaoyi Pang, Quan Z. Sheng, **Sen Wang**, and Mao Ye. Structured Streaming Skeleton—A New Feature for Online Human Gesture Recognition. *ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM)* 11, no. 1s (2014): 22. **(IF: 2.250)**
- **Sen Wang**, Zhigang Ma, Yi Yang, Xue Li, Chaoyi Pang, Alexander G. Hauptmann. Semi-supervised Multiple Feature Analysis for Action Recognition. *IEEE Transactions on Multimedia (TMM)*, vol. 16(2), pp. 1-10, 2014. **(IF: 3.977)**
- Xin Zhao, Xue Li, Chaoyi Pang, **Sen Wang**. Human Action Recognition Based on Semi-supervised Discriminant Analysis with Global Constraint. *Neurocomputing*, 105: 4550, 2013. **(IF: 3.241)**
- Chaoyi Pang, Qing Zhang, Xiaofang Zhou, David Hansen, **Sen Wang**, Anthony Maeder. Computing Unrestricted Synopses Under Maximum Error Bound. *Algorithmica*, 65(1): 1-42, 2013. **(IF: 0.735)**

## Professional Activities

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Invited reviewer for *IJCAI*, *IJCNN*, *ACM Transactions on Multimedia (TMM)*, *Computer Vision and Image Understanding (CVIU)*, *ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM)*, *Multimedia Tools and Applications*, *Pattern Recognition*, *Information Sciences*, *Neurocomputing*, *World Wide Web (WWWJ)*, *IEEE Transactions on Affective Computing (TAC)*, *IEEE Transactions on Big Data (TBD)*, *Multimedia Systems*, etc.