Xue-Song Wang 王雪松

Curriculum Vitae

November 2021



Education

2019-	University of New South Wales Ph.D. in Computer Science and Engineering supervised by Scientia Assoc. Prof. Lina Yao.
2016-2019	Tongji University M.Eng. in Control Science and Engineering supervised by Prof. Qi Kang. GPA: 4.46/5.0.
Term1 2015	Royal Melbourne Institute of Technology Exchange Program. GPA: 4.0/4.0.
2012-2016	Nanjing University of Aeronautics and Astronautics B.Eng. in Mechanical Engineering and Automation. GPA: 3.8/5.0.

Experience

PayPal · Software Engineer Intern (4 months) · Shanghai
Improving anomaly detection algorithms for Fin-tech models. Experimented with Fast Fourier Transforms (seasonality detection), Isolation Forest (anomaly detection) and LSTM (sequential prediction).

Publications

- Global Convolutional Neural Processes. Xuesong Wang*, Lina Yao, Xianzhi Wang, Hye-young Paik, and Sen Wang. In IEEE International Conference on Data Mining, ICDM 2021. (*Best Paper Candidate).
- NP-PROV: Neural Processes with Position-Relevant-Only Variances. Xuesong Wang, Lina Yao*, Xianzhi Wang, Feiping Nie and Boualem Benatallah. In *International Conference on Web Information Systems Engineering*, WISE 2021.
- Mobility Irregularity Detection with Smart Transit Card Data. Xuesong Wang*, Lina Yao, Wei Liu, Can Li, Lei Bai, and S. Travis Waller. In *Pacific-Asia Conference on Knowledge Discovery and Data Mining*, PAKDD 2020.
- Multiscale Drift Detection Test to Enable Fast Learning in Nonstationary Environments. XueSong Wang, Qi Kang*, MengChu Zhou, Le Pan, and Abdullah Abusorrah. In *IEEE Transactions on Cybernetics* 2020.
- Predicting Heat Transfer of Oscillating Heat Pipes for Machining Processes based on Extreme Gradient Boosting Algorithm. Ning Qian, Xuesong Wang, Yucan Fu, Zhengcai Zhao, Jiuhua Xu, and Jiajia Chen. In Applied Thermal Engineering 2020.
- Drifted Twitter Spam Classification Using Multiscale Detection Test on K-L Divergence. Xuesong Wang, Qi Kang*, Jing An, and Mengchu Zhou*. In IEEE Access 2019.
- A Distance-based Weighted Undersampling Scheme for Support Vector Machines and its Application to Imbalanced Classification. Qi Kang*, Lei Shi, MengChu Zhou, XueSong Wang, QiDi Wu, and Zhi Wei. In IEEE Transactions on Neural Networks and Learning Systems, TNNLS 2018.

Awards

2021	Invited PhD lightning talk, ACM Multimedia Asia
2021	ICDM 2021 Best Student Paper Candidate, IEEE
2021	3-Minute-Thesis Final-list, UNSW
2021	3-Minute-Thesis Second Prize (2 out of 7) School of Computer Science and Engineering, UNSW.
	3MT is a competition for PhDs to consolidate their ideas and crystallise research discoveries in 3 minutes.
2021	Google Research India Graduate Symposium Attendee.
2019	TFS-CSC PhD scholarship. Four-years funding with tuition fee waiver, UNSW and CSC.
2019	Outstanding Master Thesis. Tongji Unviersity award for academic excellence during the master.
2018	TJ-TUM Industrial 4.0 Symposium . Selected to present the master project in Technical University of Munich.
2015	Exchange Student Scholarship. Sponsored by China-Scholarship-Council (CSC) for exchange program in RMIT.

Teaching Assistant

Bachelor COMM1190 "Data, Insights, Decisions", Term 3 2021, UNSW.

Skills

Languages Python, Matlab, R, C++, SQL.

Frameworks PyTorch, NumPy, Tensorflow, scikit-learn, Pandas.

Misc. Git, LaTeX.

Other Projects

2020 | Spatial-Temporal Data Mining for Smart Cities with Dr. Lei Bai. (University of Sydney)

https://www.researchgate.net/project/Spatial-Temporal-Data-Mining-for-Smart-Cities

Spatial and temporal knowledge exploitation on Public transportation systems in New South Wales.

2019 Concept Drift Detection in HSR Pantograph Systems with Prof. Qi Kang (Tongji University)

https://www.researchgate.net/project/Concept-Drift-Detection-2

Distributional drifts representation and tracing in non-stationary environments.

Languages

Mandarin (mother-tongue) · English (IELTS 7.5) · Shanghainese

Interests and Volunteering

Term2 2020 | Personalized English Language Enhancement PELE · Mentor

Together with the UNSW linguistic A. Prof. Mira Kim, enabled personalized English learning and hosted social clubs for International students to accomplish a smoother life transition in Australia.

2012 - **Dialects and Psychology** · Interests

Strong curiosity in people, been travelled and studied in many places, love "guessing" and "classifying" a person's hometown by the dialect. Interested in psychological explanation for human behaviors, recently reading *The Social Animal* by Elliot Aronson.