Xue-Song Wang 王雪松
Curriculum Vitae

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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.Sc. 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** M.Sc. in Mechanical Engineering and Automation. *GPA: 3.8/5.0.*

Experience

2018	**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

- **NP-PROV: Neural Processes with Position-Relevant-Only Variances**. Xuesong Wang*, Lina Yao, Xianzhi Wang, and Feiping Nie. In *abs/2007.00767*, arXiv 2020. �

- **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	**3-Minute-Thesis People's Choice Award (3 out of 15)** Faculty of Engineering, 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.