Jiashu Wu

Ph.D. Student, University of Chinese Academy of Sciences

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EDUCATION

University of Chinese Academy of Sciences

Beijing, China

Doctor of Philosophy in Computer Science, advisor: Prof. Yang Wang

Sept 2021 - Jun 2024 (Expected)

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University of Melbourne

Melbourne, Australia

Master of Information Technology (with Distinction)

Jan 2019 - Dec 2020

Major: artificial intelligence, advisor: Prof. Rui Zhang, average mark: 88.1 (First Class Honour, top 2%)

University of Sydney

Sydney, Australia

Bachelor of Science

Jan 2016 - Dec 2018

Major: Computer Science, Financial Mathematics & Statistics, advisor: Prof. Simon Poon, average mark: 86.5 (High Distinction, top 2%)

RESEARCH INTERESTS

My research interest focuses on applying domain adaptation to enhance the efficacy of IoT intrusion detection.

Publications (*co-first author, full list: Google Scholar)

I: IoT Intrusion Detection via Domain Adaptation and its Efficiency Improvement

- 1. Heterogeneous Domain Adaptation for IoT Intrusion Detection: A Geometric Graph Alignment Approach **Jiashu Wu**, Hao Dai, Yang Wang ⊠, Kejiang Ye, Chengzhong Xu *IEEE Internet of Things Journal* (**IEEE IoTJ**, IF: 10.24), 2023
- 2. Cost-Efficient Sharing Algorithms for DNN Model Serving in Mobile Edge Networks Hao Dai, **Jiashu Wu**, Yang Wang ⊠, Jerome Yen, Yong Zhang, Chengzhong Xu *IEEE Transactions on Services Computing* (**IEEE TSC**, IF: 11.02), 2023
- 3. Joint Semantic Transfer Network for IoT Intrusion Detection **Jiashu Wu**, Yang Wang ⊠, Binhui Xie, Shuang Li, Hao Dai, Kejiang Ye, Chengzhong Xu *IEEE Internet of Things Journal* (**IEEE IoTJ**, IF: 10.24), 2022
- 4. PackCache: An Online Cost-driven Data Caching Algorithm in the Cloud **Jiashu Wu**, Hao Dai, Yang Wang ⊠, Yong Zhang, Dong Huang, Chengzhong Xu *IEEE Transactions on Computers* (**IEEE TC**, IF: 3.18), 2022
- Towards Scalable and Efficient Deep-RL in Edge Computing: A Game-based Partition Approach Hao Dai, Jiashu Wu, Yang Wang ⋈, Chengzhong Xu Journal of Parallel and Distributed Computing (JPDC, IF: 4.54), 2022
- Multi-Scenario Bimetric-Balanced IoT Resource Allocation: An Evolutionary Approach
 Jiashu Wu, Hao Dai, Yang Wang ⋈, Zhiying Tu
 IEEE International Conference on High Performance Computing and Communications (IEEE HPCC),
 2022
- 7. Simultaneous Semantic Alignment Network for Heterogeneous Domain Adaptation Shuang Li, Binhui Xie, **Jiashu Wu**, Ying Zhao, Chi Harold Liu ⊠, Zhengming Ding *ACM Multimedia* (**ACM MM**, IS: 12.9), 2020, Seattle, Washing, USA
- 8. Adaptive Bi-Recommendation and Self-improving Network for Heterogeneous Domain Adaptation-assisted IoT Intrusion Detection

 Jiashu Wu, Yang Wang ⋈, Hao Dai, Chengzhong Xu, Kenneth B. Kent

 Under review at IEEE Internet of Things Journal (IEEE IoTJ, IF: 10.24), 2023

9. Open Set Dandelion Network for IoT Intrusion Detection

Jiashu Wu, Hao Dai, Yang Wang ⊠, Kenneth B. Kent, Chengzhong Xu

Under review at ACM Transactions on Internet Technology (ACM TIOT, IF: 3.99), 2023

II: Thesis

- 10. Research on IoT Intrusion Detection via Domain Adaptation Approach Ph.D Thesis at the University of Chinese Academy of Sciences
- 11. Learning to Rank with Small Set of Ground Truth Data

 Master Thesis at the University of Melbourne

III: Patents

Five Chinese patents already be granted and 14 Chinese patents under examination

AWARD

- Outstanding Student, University of Chinese Academy of Sciences, 2022
- Graduate with Distinction, University of Melbourne, 2020
- Dean's Honours List, University of Melbourne, 2019
- Dean's List of Excellence in Academic Performance, University of Sydney, 2018 & 2017

EXPERIENCE

Software Engineer at Melbourne eResearch Group Mar 2020 - July 2020, Melbourne Australia Develop a meeting diarisation Android app for research purposes. Key skills including Java programming, Git code management and the interaction with Google ML Speech API.

Student Intern at Beijing Institute of Technology Nov 2019 - May 2020, Beijing China Carry out research on domain adaptation and propose a novel simultaneous semantic alignment network. Key skills including DL algorithm design, Python programming and research paper writing (work published in ACMMM'20).

Research and Development Engineer at University of Melbourne — Jul 2019 - Nov 2019, Melbourne Australia Develop an academia searching platform under the challenging data-scarce condition. Key skills including Python programming, NLP data processing and recommender system algorithm design.

Dalyell Scholar Program at University of Sydney Mar 2018 - Jul 2018, Sydney Australia Carry out research on Parkinson disease detection based on drawing patterns and develop an Android app for drawing data collection. Key skills including Java programming and database management.

SKILLS

Programming Skill: Python, Java, Matlab, SQL, R

Language Skill: English (IELTS Academic 7.0, live and study in Australia for 5 years), Mandarin Chinese (Native Speaker)