WISE2023 PROGRAM

DAY 0 - TUESDAY 24 OCTOBER 2023

WELCOME RECEPTION

Time: Start at 18:30

Location: Hophaus Bar, MR5/3 Southgate Ave, Southbank VIC 3006

DAY 1 - WEDNESDAY 25 OCTOBER 2023

CONFERENCE OPENING

Time: 9:20-9:30

Location: Room ROGL02 & ZOOM 1

Welcome Speech	Prof Yanchun Zhang	Victoria University, Australia
Opening Address & Program Introduction	Prof Hua Wang	Victoria University, Australia

KEYNOTE SPEECH 1

Time: 9:30-10:30 (including 10 min ques.& Ans.)

Location: Room ROGL02 & ZOOM 1

Speaker: Prof. Shazia Sadiq, The University of Queensland, Australia

Title: "Information Resilience"

MORNING TEA

Time: 10:30-11:00

SESSION 1

[20min presentation each (15 min presentation and 5min Question & answer)]

Time: 11:00-12:40

Location: Room ROGL02 & ZOOM 1

Group: Information retrieval 1

Time	Authors	Title
11:00-11:20	Jingyi Wang and Xuedong Tian	"Math Information Retrieval with Contrastive Learning of Formula Embeddings"
11:20-11:40	Liang Zhu, Shilan Zhang, Xin Song, Qin Ma and Weiyi Meng	"Processing Reverse Nearest Neighbor Queries Based on Unbalanced Multiway Region Tree Index"
11:40-12:00	Xun Yao, Qihang Yang, Xinrong Hu, Jie Yang and Yi Guo	"CREAM: Named Entity Recognition with Concise query and Region-Aware Minimization"
12:00-12:20	Tingting Xu, Yinghao Zhang, Jiuyong Li, Lin Liu, Ziqi Xu, Debo Cheng and Zaiwen Feng	"A data-driven approach to finding K for K nearest neighbor matching in average causal effect estimation"
12:20-12:40	Qinzhen Cao, Rui Xi, Jie Wu and Xiaowen Nie	"GADESQL: Graph Attention Diffusion Enhanced Text-To-SQL with Single and Multi-hop Relations"

SESSION 2

[20min presentation each (15 min presentation and 5min Question & answer)]

Time: 11:00-12:40

Location: Room RO0102 & ZOOM 2

Group: Information retrieval 2

Time	Authors	Title
11:00-11:20	Yuyang He, Juntao Zhang, Xiandi Yang and Zhiyong Peng	"User Context-aware Attention Networks for Answer Selection"
11:20-11:40	Ahmed Talukder, Richi Nayak and Md Abul Bashar	"GAN-IE: Enhancing Information Extraction through Generative Adversarial Networks with limited annotated data"
11:40-12:00	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"
12:00-12:20	Xun Yao, Junlong Ma, Xinrong Hu, Jie Yang, Yi Guo and Junping Liu	"Towards robust token embeddings for Extractive Question Answering"
12:20-12:40	Pengcheng Xiao, Peng Lu, Chunqi Luo, Zhousen Zhu and Xuehua Liao	"Fast Text Comparison Based on ElasticSearch and Dynamic Programming"

LUNCH BREAK

Time: 12:40-13:40

SESSION 3

[20min presentation each (15 min presentation and 5min Question & answer)]

Time: 13:40-15:20

Location: Room ROGL02 & ZOOM 1

Group: Social media

Time	Authors	Title
13:40-14:00	Xuanji Xiao, Huaqiang Dai, Qian Dong, Shuzi Niu, Yuzhen Liu and Pei Liu	"Incorporating Social-aware User Preference for Video Recommendation"
14:00-14:20	Hongjiao Liu, Shan Xue, Jian Yang and Jia Wu	"Enhancing Trust Prediction in Attributed Social Networks with Self-Supervised Learning"
14:20-14:40	Lihua Liu, Mao Wang, Haiwei Jiang, Ziming Li, Peifan Shi and Youhuan Li	"Highly Applicable Linear Event Detection Algorithm on Social Media with Graph Stream"
14:40-15:00	Alessandro Visintin and Mauro Conti	"Leveraging social networks for mergers and acquisitions forecasting"
15:00-15:20	Wei Huang, Guohao Sun, Mei Wang, Weiliang Zhao and Jian Yang	"Influence Embedding from Incomplete Observations in Sina Weibo"

SESSION 4

[20min presentation each (15 min presentation and 5min Question & answer)]

Time: 13:40-15:20

Location: Room RO0102 & ZOOM 2

Group: Recommender system

Time	Authors	Title
13:40-14:00	Kun He, Shunmei Meng, Qianmu Li, Xiao Liu, Amin Beheshti, Xiaoxiao Chi and Xuyun Zhang	"Noise-augmented Contrastive Learning for Sequential Recommendation"
14:00-14:20	Vadin Sudarsan and Mohammad Polash	"Self-Attention Convolutional Neural Network for Sequential Recommendation"
14:20-14:40	Ronghua Lin, Luyao Teng, Feiyi Tang, Hao Zhong, Chengzhe Yuan and Chengjie Mao	"Informative Anchor-enhanced Heterogeneous Global Graph Neural Networks for Personalized Session-based Recommendation"
14:40-15:00	Mozhgan Karimi, Boris Cule and Bart Goethals	"Leveraging Sequential Episode Mining for Session-based News Recommendation"
15:00-15:20	Ming He, Boyang An, Jiwen Wang and Hao Wen	"Counterfactual Explanations for Sequential Recommendation with Temporal Dependencies"

AFTERNOON TEA

Time: 15:20-15:50

SESSION 5

[20min presentation each (15 min presentation and 5min Question & answer)]

Time: 15:50-17:50

Location: Room ROGL02 & ZOOM 1

Group: Graph data

Time	Authors	Title
15:50-16:10	Jiao Yin, Guihong Chen, Wei Hong, Hua Wang, Jinli Cao and Yuan Miao	"Empowering Vulnerability Prioritization: A Heterogeneous Graph-Driven Framework for Exploitability Prediction"
16:10-16:30	Wenting Li, Jiahong Xue, Xi Zhang, Huacan Chen, Zeyu Chen and Yuanzhe Cai	"Word-Graph2vec: An efficient word embedding approach on word co-occurrence graph using random walk technique"
16:30-16:50	Liu Yang, Jie Zhao, Jun Long, Jincai Huang, Zidong Wang and Tingxuan Chen	"Path-KGE: Preference-aware Knowledge Graph Embedding with Path Semantics for Link Prediction"
16:50-17:10	Shipeng Zhang and Jing Liu	"Multivariate Time Series Anomaly Detection Based on Graph Neural Network for Big Data Scheduling System"
17:10-17:30	Weisheng Li, Feiyi Tang, Chao Chang, Hao Zhong, Ronghua Lin and Yong Tang	"Efficient Graph Embedding Method for Link Prediction via Incorporating Graph Structure and Node Attributes"
17:30-17:50	Jiale Xu, Ouxia Du, Siyu Liu and Ya Li	"Topological Network Field Preservation For Heterogeneous Graph Embedding"

SESSION 6

[20min presentation each (15 min presentation and 5min Question & answer)]

Time: 15:50-17:30

Location: Room ROGL02 & ZOOM 1

Group: Knowledge discovery

Time	Authors	Title
15:50-16:10	Venkata Bharath Bandi, Xiaohui Tao, Thanveer Shaik, Jianming Yong and Ji Zhang	"A Study of the Impact on Employability by COVID-19 Pandemic"
16:10-16:30	Ziyuan Jing, Basem Suleiman, Waheeb Yaqub and Manoranjan Mohanty	"Dissemination of Fact-checked News does not Combat False News: Empirical Analysis"
16:30-16:50	Guangtong Zhou, Selasi Kwashie, Yidi Zhang, Michael Bewong, Vincent M.Nofong, Debo Cheng, Keqing He, Shanmei Liu and Zaiwen Feng	"FastAGEDs: Fast Approximate Graph Entity Dependency Discovery"
16:50-17:10	Bin Wang, Fuyong Xu, Zhenfang Zhu and Peiyu Liu	"Knowledge-grounded Dialogue Generation with Contrastive Knowledge Selection"
17:10-17:30	Chen Ji, Jilu Wang, Jie Xu, Wenxiao Liu, Zihong Yang, Feiran Huang and Chaozhuo Li	"Improving Conversational Recommender Systems via Knowledge-enhanced Temporal Embedding"

DAY 2 - THURSDAY 26 OCTOBER 2023

KEYNOTE SPEECH 2

Time: 9:30-10:30 (including 10 min ques.& Ans.)

Location: Room ROGL02 & ZOOM 1

Speaker: Prof. Jie Lu, University of Technology Sydney, Australia

Title: "Fuzzy Transfer learning"

MORNING TEA

Time: 10:30-11:00

SESSION 7

[20min presentation each (15 min presentation and 5min Question & answer)]

Time: 11:00-12:40

Location: Room ROGL02 & ZOOM 1

Group: Natural language processing

Time	Authors	Title
11:00-11:20	Yuankai Fan, Tonghui Ren, Dianjun Guo, Zhigang Zhao, Zhenying He, X. Sean Wang, Yu Wang and Tao Sui	"An Integrated Interactive Framework for Natural Language to SQL Translation"
11:20-11:40	Yuquan Yang, Qifan Zhang and Junjie Yao	"Task-driven Enhanced Neural Natural Language Interface to Database"
11:40-12:00	Jacob Dylan Pratley and Dr. Md Masbaul Alam Polash	"Fraudulent Jobs Prediction Using Natural Language Processing and Deep Learning Sequential Models"
12:00-12:20	Harika Abburi, Michael Suesserman, Nirmala Pudota,	"An Ensemble-based Approach for Generative Language Model Attribution"

Time	Authors	Title
	Balaji Veeramani, Edward Bowen and Sanmitra Bhattacharya	
12:20-12:40	Senthil Ganesan Yuvaraj, Boualem Benatallah, Hamid Reza Motahari-Nezhad and Fethi Rabhi	"Identification and Generation of Actions using Pre-trained Language Models"

SESSION 8

[20min presentation each (15 min presentation and 5min Question & answer)]

Time: 11:00-12:40

Location: Room RO0102 & ZOOM 2

Group: Text mining

Time	Authors	Title
11:00-11:20	Ghada Ben Abdennour, Karim Gasmi and Ridha Ejbali	"Ensemble learning model for medical text classification"
11:20-11:40	Ben Sassi Manel, Maher Abbes and Faten Atigui	"Fuzzy based text quality assessment for sentiment analysis"
11:40-12:00	Chengzhe Yuan, Zekai Zhou, Feiyi Tang, Ronghua Lin, Chengjie Mao and Luyao Teng	"Prompt-Learning for Semi-Supervised Text Classification"
12:00-12:20	Ting Huang, Xiufeng Liu and Xike Xie	"Multi-level Correlation Matching for Legal Text Similarity Modeling with Multiple Examples"
12:20-12:40	Xuqiang Xue, Xiaoming Wu, Shengnan Li and Xiangzhi Liu	"Label-Dependent Hypergraph Neural Network for Enhanced Multi-label Text Classification"

LUNCH BREAK

Time: 12:40-13:40

SESSION 9

[20min presentation each (15 min presentation and 5min Question & answer)]

Time: 13:40-15:20

Location: Room ROGL02 & ZOOM 1

Group: Web informatics

Time	Authors	Title
13:40-14:00	Devis Bianchini and Massimiliano Garda	"A Methodological Approach for Data-intensive Web Application Design on top of Data Lakes"
14:00-14:20	Mohamed Ragab, Yury Savateev, Reza Moosaei, Thanassis Tiropanis, Alexandra Poulovassilis, Adriane Chapman and George Roussos	"ESPRESSO: A Framework for Empowering Search on Decentralized Web"
14:20-14:40	Adrian Sterca, Virginia Niculescu, Camelia Chisalita-Cretu and Cristina Osman	"Primary Building Blocks for Web Automation"
14:40-15:00	Elvismary Molina De Armas, Geiza Maria Hamazaki da Silva,	"A Web Service Oriented Integration Solution for Capital Facilities Information Handover"

Time	Authors	Title
	Julio Gonçalves Campos, Vitor Pinheiro de Almeida, Hugo Neves, Eduardo Thadeu Leite Corseuil and Fernando Rodrigues Gonzalez	
15:00-15:20	Minh-Hieu Huynh, Quoc-Tri Le, Vu Nguyen and Tien Nguyen	"Web Page Segmentation: A DOM-structural Cohesion Analysis Approach"

SESSION 10

[20min presentation each (15 min presentation and 5min Question & answer)]

Time: 13:40-15:20

Location: Room RO0102 & ZOOM 2

Group: Web data models

Time	Authors	Title
13:40-14:00	Shaohua Teng, Yanhang Chen, Luyao Teng, Zefeng Zheng and Wei Zhang	"Solving Injection Molding Production Cost Problem Based on Combined Group Role Assignment with Costs"
14:00-14:20	Zhaohui Zhang, Yifei Tang, Peng Zhang, Pei Zhang, Dongxue Zhang and Pengwei Wang	"An Adaptive Drilling Sampling Method and Evaluation Model for Large Scale Streaming Data"
14:20-14:40	Kao Wan, Zhaoxi Wu, Qian Cao, Xiaotao Zheng, Ziwei Li and Tong Li	"Capo: Calibrating Device-to-Device Positioning With a Collaborative Network"
14:40-15:00	Shaohua Teng, Wenjie Liu, Wei Zhang, Zefeng Zheng and Luyao Teng	"Domain Adaptation with Sample Relation Reinforcement"
15:00-15:20	Abdelhadi Belfadel, Maxence Gagnant, Matthieu Dussartre, Jérôme Picault, Laure Crochepierre and Sana Tmar	"A semi-automatic framework towards building Electricity Grid Infrastructure Management ontology: A case study and retrospective"

AFTERNOON TEA

Time: 15:20-15:50

SESSION 11

[20min presentation each (15 min presentation and 5min Question & answer)]

Time: 15:50-17:50

Location: Room ROGL02 & ZOOM 1

Group: Privacy and security 1

Time	Authors	Title
15:50-16:10	Phavithra Manoharan, Wei Hong, Jiao Yin, Yanchun Zhang, Wenjie Ye, Jiangang Ma	"Bilateral Insider Threat Detection: Harnessing Standalone and Sequential Activities with Recurrent Neural Networks"
16:10-16:30	Ruo-Yu Zhu, Jian-Yu Li, Hu Jin, Sang-Woon Jeon, Zhi-Hui Zhan and Jun Zhang	"Proximity-based MAENS: A Computational Intelligence Method for Privacy-Preserving Multiple Traveling Salesmen Problem"

Time		Title
16:30-16:50	Yuzi Yi, Nafei Zhu, Jingsha He, Xiangjun Ma and Yehong Luo	"Priv-S: Privacy-Sensitive Data Identification in Online Social Networks"
16:50-17:10	Mingshan You, Yong-Feng Ge, Kate Wang, Hua Wang, Jinli Cao and Georgios Kambourakis	"TLEF: Two-Layer Evolutionary Framework for t-closeness Anonymization"
17:10-17:30	Bing Sun, Jian-Yu Li, Xiao-Fang Liu, Qiang Yang, Zhi-Hui Zhan and Jun Zhang	"A Privacy-Preserving Evolutionary Computation Framework for Feature Selection"
17:30-17:50	Bo Cui, Jinling Li and Wenhan Hou	"ATDG: An automatic cyber threat intelligence extraction model of DPCNN and BIGRU combined with attention mechanism"

SESSION 12

[20min presentation each (15 min presentation and 5min Question & answer)]

Time: 15:50-17:30

Location: Privacy and security 2

Group: Privacy and security 2

Time	Authors	Title
15:50-16:10	Kun Wang, Ang Li and Xiaokun Wang	"Study on Credit Risk Control By Variational Inference"
16:10-16:30	Raed Abdallah, Hassan Harb, Yehia Taher, Salima Benbernou and Rafiqul Haque	"ICAD: An Intelligent Framework for Real-Time Criminal Analytics and Detection"
16:30-16:50	Qian Zhou, Zhongxu Han and Jiayang Wu	"Local Difference-Based Federated Learning Against Preference Profiling Attacks"
16:50-17:10	Athanasios Georgoutsos, Paraskevas Kerasiotis and Verena Kantere	"Federated Learning Performance on Early ICU Mortality Prediction with Extreme Data Distributions"
17:10-17:30	Wenxuan Huang, Thanassis Tiropanis and George Konstantinidis	"A Dual-Layer Privacy-Preserving Federated Learning Framework"
17:30-17:50	Maojie Wang, Shaodong Han, Guihong Chen, Jiao Yin and Jinli Cao	"Blockchain-Empowered Resource Allocation and Data Security for Efficient Vehicle Edge Computing"

BANQUET

Time: Start at 18:30

Location: Hofbrauhaus at 18 Market Lane, Melbourne, VIC 3000

DAY 3 - FRIDAY 27 OCTOBER 2023

KEYNOTE SPEECH 3

Time: 9:30-10:30 (including 10 min ques.& Ans.)

Location: Room ROGL02 & ZOOM 1

Speaker: Prof. Lei Zou, Peking University, China

Title: "Query Processing and Optimization in a Native Graph Database"

MORNING TEA

Time: 10:30-11:00

SESSION 13

[20min presentation each (15 min presentation and 5min Question & answer)]

Time: 11:00-12:40

Location: Room ROGL02 & ZOOM 1

Group: Machine learning and applications 1

Time	Authors	Title
11:20-11:40	Lara Kallab, Elio Mansour and Richard Chbeir	"SML: Semantic Machine Learning Model Ontology"
11:00-11:20	Kossi Jean Baptiste Christson Awanyo and Nawal Guermouche	"Deep Neural Network based approach for IoT service QoS prediction"
11:40-12:00	Xiaoying Yang, Lijie Li, Gang Xu, Ming Song and Feng Zhang	"Link Prediction for Opportunistic Networks Based on Hybrid Similarity Metrics and E-LSTM-D Models"
12:00-12:20	Amjad Rattrout, Israa Alqatow and Rashid Jayousi	"Prediction of Student Performance with Machine Learning Algorithms Based on ensemble learning methods"
12:20-12:40	Sibo Qi, Juan Chen, Peng Chen, Jie Li, Wenyu Shan and Peian Wen	"An Effective Dynamic Cost-Sensitive Weighting based Anomaly Multi-Classification Model"

SESSION 14

[20min presentation each (15 min presentation and 5min Question & answer)]

Time: 11:00-12:40

Location: Room RO0102 & ZOOM 2

Group: Machine learning and applications 2

Time	Authors	Title
11:00-11:20	Guanglin Zhou, Lina Yao, Xiwei Xu, Chen Wang and Liming Zhu	"Meta-Learning for Improved Counterfactual Inference: Estimating Multiple Treatment Effects in the Presence of Imbalance"
11:20-11:40	Yuan Feng and Qing Yu	"TSEGformer:Time-Space Dimension Dependency Transformer for Use in Multivariate Time Series Prediction"
11:40-12:00	Kankan Zhao, Youfang Leng, Hui Zhang and Xiyue Gao	"Scaling Machine Learning with an Efficient Hybrid Distributed Framework"
12:00-12:20	Chengyang Ye and Qiang Ma	"Unsupervised Representation Learning with Semantic of Streaming Time Series"
12:20-12:40	Ambreen Hanif, Amin Beheshti, Boualem Benatallah, Xuyun Zhang, Eujin Foo, Nasrin Shabani, Maryam Shahabikargar and Habiba Habiba	"A Comprehensive Survey of Explainable Artificial Intelligence (XAI) Methods: Exploring Transparency and Interpretability"

LUNCH BREAK

Time: 12:40-13:40

Invited Talk

Time: 13:40-14:20 am (including 5 min ques.& Ans.)

Speaker: Dr Jiaying Kou, Australian Urban Research Infrastructure Network (AURIN), Australia

Title: "AURIN—Enable, Empower and Encourage Research on Diversity, Equity and Inclusion"

Demos

[20min presentation each (15 min presentation and 5min Question & answer)]

Time: 11:00-12:40

Location: Room ROGL02 & ZOOM 1

Time	Authors	Title
11:00-11:20	Mingjian Ni, Yinghao Song, Gongju Wang, Lanxiao Feng, Yang Li, Long Yan, Dazhong Li, Yanfei Wang, Shikun Zhang and Yulun Song	"MIED : An Improved Graph Neural Network for Node Embedding in Heterogeneous Graphs "
11:20-11:40	Wenbo Yu, Jinguo You, Jianfeng He and Xiangyu Niu	"RBOIRA: Integrating Rules and Reinforcement Learning to Improve Index Recommendation "

AFTERNOON TEA

Time: 15:20-15:50

PANEL SESSION

Time: 15:50-16:50

Location: Room ROGL02 & ZOOM 1