

30-31 October 2023

The Studio @ Melbourne Connect
700 Swanston Street
Corner of Swanston & Grattan Streets
Carlton, Melbourne

DAY 1 - MONDAY 30 OCTOBER

TIME	ACTIVITY
8:00am	Tea, coffee, registration and poster set up
8:45am	Introduction to CIRES and the Information Resilience PhD School (Presenter: Prof Shazia Sadiq, Director, ARC ITTC for Information Resilience, CIRES, The University of Queensland)
9:00am	Keynote: <i>Trustworthy data science for social good</i> (Presenter: Prof. Jenny Zhang, RMIT University)
10:00am	Morning tea and poster browsing
10:30am	3 Minute Thesis Session A
12:00pm	Lunch and poster browsing
1:00pm	3 Minute Thesis Session B
2:30pm	Short Break
2:45pm	Interactive session on the use of ChatGPT for scientific research (Presenter: Prof. Guido Zuccon, The University of Queensland)
3:45pm	Afternoon Tea and poster browsing
4:15pm	Panel: Research and innovation careers in industry. Presenters: Dr Victor Fedyashov (Xero), Damian Felsbourg (Astral), Dr Karl Grieser (Xero), Dr Fernando Mourao (SEEK), and Dr Mingfang Wu (ARDC)
5:15pm	Group photos
6:00pm	Banquet: Ziyka Restaurant, 234-236 Lygon Street, Carlton (6 minute walk from venue)

DAY 2 – TUESDAY 31 OCTOBER

TIME	ACTIVITY
8:00am	Tea & Coffee on arrival
8:25am	Overview of Day 2 (Presenter: Dr. Rocky Chen, PhD School Chair, The University of Queensland)
8:30am	Keynote: Society in the Loop: Observability and Accountability the era of Artificial Intelligence (Presenter: Prof. Julian Thomas, Director, ARC Centre of Excellence for Automated Decision-Making and Society, RMIT University)
9:30am	Short Break
9:45am	Interactive Session on Data Literacy (Presenter: A/Prof Hassan Khosravi, The University of Queensland)
10:45pm	Morning Tea
11:00am	Technical Tutorial: Geospatial entity representation: a step towards city foundation models Part 1 (Presenter: Professor Gao Cong, Nanyang Technological University, NTU Singapore)
12:00pm	Lunch
1:00pm	Technical Tutorial: Geospatial entity representation: a step towards city foundation models Part 2 (Presenter: Professor Gao Cong, Nanyang Technological University, NTU Singapore)
2:00pm	Short Break
2:15pm	Tips and tricks for effective PhD (Presenter: Dr Renata Borovica-Gajic, University of Melbourne)
3:15pm	Afternoon Tea (take down posters)
3:30pm	Closing remarks, information sharing, and awards (Presenter: Prof Shazia Sadiq, Director, ARC ITTC for Information Resilience, CIRES, The University of Queensland)
4:00pm	Close

TUTORIAL



Professor Gao Cong

Geospatial entity representation: a step towards city foundation models

The tutorial will begin with an overview of the recent research conducted by the speaker's team. Subsequently, the rest of the tutorial will cover the following research problems on geospatial entity representation: 1) Geospatial Entity Representation for point objects, trajectory, and regions and their applications, e.g., spatial keyword search, speed inference, region population estimations, etc. 2) Application of Foundation Models for Geospatial Applications and Efforts toward City Foundation Models. The first part concentrates on learning representations to facilitate geospatial entity querying and analysis. The second part focuses on self-supervised learning approaches applied to geospatial entities.

Gao Cong is currently a Professor in the School of Computer Science and Engineering at Nanyang Technological University (NTU), and a co-director for Singtel Cognitive and Artificial Intelligence Lab for Enterprises@NTU. His current research interests include geospatial+X data management, machine learning for databases, geospatial data mining, and recommendation systems.

KEYNOTES



Professor Jenny Zhang

Trustworthy data science for social good

Data science has been the driving technology in the current age of artificial intelligence and has been applied to every corner of society, from sharing information on social media to recommendation of items on E-commerce platforms. Trustworthy data science is critical to ensure that predictions and decisions made based on data are transparent, fair and ethical. In this talk I will discuss some research we have conducted towards trustworthy data science for social good, including explainable rumour detection on social media, fair opinion summarisation, and responsible recommendation amidst the presence of misinformation.

Xiuzhen (Jenny) Zhang is Professor of Professor of Data Science at RMIT University, Australia. Her research interests are data mining and machine learning, with a focus on text analysis and social media data analysis. She is especially interested in data science for social good, in areas such as misinformation detection and mitigation, law enforcement, and digital health.



Professor Julian Thomas

Society in the Loop: Observability and Accountability the era of Artificial Intelligence

Julian Thomas is Director of the ARC Centre of Excellence for Automated Decision-Making and Society, and a Distinguished Professor in the School of Media and Communication at RMIT University. He has written widely about digital inclusion, automation and AI, among other topics concerning the social aspects of new communications and computing technologies.

INTERACTIVE SESSIONS



Professor Guido Zuccon

The use of ChatGPT for scientific research

Professor Guido Zuccon is a Professorial Research Fellow at The University of Queensland, and the AI Director for the Queensland Digital Health Centre (QDHeC). Guido's main research interests are Information Retrieval, Health Search, Formal Models of Search and Search Interaction, and Health Data Science.



Associate Professor Hassan Khosravi

Data Literacy

Dr Hassan Khosravi is a CIREs Chief Investigator and Theme Leader, and Senior Lecturer in Data Science and Learning Analytics at The University of Queensland and is passionate about the role of artificial intelligence in the future of education. In his research, he draws on the fields of human-computer interaction, learning analytics and explainable AI to design, implement, validate and deliver technological solutions that contribute to learner-centred, data-driven learning at scale.

PANEL: RESEARCH AND INNOVATION CAREERS IN INDUSTRY



Dr Victor Fedyashov

Victor is a Senior Applied Scientist at Xero, where he's been working in ML Products Division for the past 18 months. His prior experiences include a PhD in Maths from the University of Oxford, quantitative research in a London hedge fund, and Computational Modelling of Alzheimer's disease.



Damian Felsbourg

Damian works as an Enterprise Information Management Consultant at Astral Consulting Services, and has over 15 years' experience in the delivery of information management solutions across a variety of industries.



Dr Karl Grieser

Karl is a Staff Applied Scientist working for the AI Products division of Xero. Over the past 10 years, Karl has gained exposure to global scale data infrastructure, software engineering practices, cloud computing, product design and development and many ways of doing science in industry.



Dr Fernando Mourao

Fernando is Principal Responsible AI Leader at SEEK Limited with over a decade of experience in ML and Recommender Systems. He has dedicated himself to the exciting challenge of operationalising RAI in the industry, focusing on bridging the gap between conceptual and technical perspectives.



Dr Mingfang Wu

Mingfang works as product manager at Australian Research Data Commons and is a practitioner and researcher in the research data discovery space. Among Mingfang's research interests are interactive information retrieval, data discovery, search log analysis, and natural language processing.

TIPS & TRICKS



Dr Renata Borovica-Gajic

Tips and tricks for effective PhD

PhD is an exciting yet, at times, rather challenging journey. This talk covers the entire trajectory from thinking of embarking on a PhD journey, to choosing your advisor and the topic, to making sure you tick all the important boxes along the way and prepare yourself for the life post-PhD. We uncover the hidden challenges along the way, and share strategies to successfully tackle the problems you may encounter in this journey. Regardless of the stage you are at, there will be something for anyone, with heaps of practical advice offered to equip you with the skills needed to succeed in your PhD journey and beyond.

Dr Renata Borovica-Gajic is a Senior Lecturer in Data Analytics and ARC DECRA Fellow in the School of Computing and Information Systems (CIS) at the University of Melbourne. Her research lies at the intersection of database systems, machine learning and artificial intelligence, data-driven optimisation and analytics.