

## RESEARCH AND TEACHING INTERESTS

I currently work as an [Assistant Lecturer](#) (Teaching and Research Fellow) at [Embodied Visualisation \(EmVis\) research group, Monash University](#). I work with [Tim Dwyer](#) on Immersive Analytics research and with [Pari Delir Haghghi](#) on Construction Site Safety (industry-funded project). I received my PhD from the EmVis group in 2023.

I've been doing research in the Human-computer Interaction (HCI) field for more than 7 years. My research focuses on topics such as novel and effective interactions in immersive space, spatial cognition and perception, and AI in Immersive Analytics. I'm now leading a faculty-funded project named **Automating Brain Tumour Segmentation and Visualisation using Deep Learning in Augmented Reality**. I'm also working on a Building CRC project for **Construction On-Site Safety via Computer Vision, Large Language Models, and Mixed Reality**.

I also have six years of teaching experience at Monash University and the University of Melbourne as a lecturer, head tutor, and sessional tutor. My teaching units include **Research Methods, Data Visualisation, User Interface Design and Usability, Web Fundamentals, Mobile Application Development, and Full-stack Development** for both Bachelor and Master students. I have experience supervising Master's minor thesis and Bachelor's final-year project students.

## EDUCATION

### Monash University

Doctor of Philosophy, Computer Science  
2019 – 2023

### Monash University

Master of Information Technology  
2017 – 2018

### University of New South Wales

Bachelor of Science, Computer Science  
2010 – 2013

## RESEARCH INTERESTS

- Human-Computer Interaction
- Data Visualisation
- Immersive Analytics
- Spatial Cognition and Skills
- Embodied Interaction
- Digital Health
- Construction Safety Management

## RESEARCH PAPERS

[Jiazhou Liu](#), Kadek Satriadi, Barrett Ens, and Tim Dwyer, [Investigating the Effects of Physical Landmarks on Spatial Memory for Information Visualisation in Augmented Reality](#). 2024 IEEE International Symposium on Mixed and Augmented Reality (ISMAR 2024)

[Jiazhou Liu](#), Barrett Ens, Arnaud Prouzeau, Jim Smiley, Isobel Nixon, Sarah Goodwin, and Tim Dwyer, [DataDancing: An Exploration of the Design Space for Visualisation View Management for 3D Surfaces and Spaces](#). 2023 ACM CHI Conference on Human Factors in Computing Systems (ACM CHI 2023)

Ang Li, [Jiazhou Liu](#), Maxime Cordeil, Jack Topliss, Thammathip Piomsomboon, and Barrett Ens, [GestureExplorer: Immersive Visualisation and Exploration of Gesture Data](#). 2023 ACM CHI Conference on Human Factors in Computing Systems (ACM CHI 2023)

## GRANTS, AWARDS & SCHOLARSHIPS

### ECA Seed Grant

Monash Faculty of Information Technology  
2024 - 2025

### Postgraduate Publication Award

Monash Graduate Research  
2023

### Graduate Research Completion Award

Monash Graduate Research  
2022

### Australian Research Training Program Scholarship

Australian Department of Education  
2019 - 2022

### Information Technology Postgraduate Scholarship

Monash University  
2018 - 2019

## ACADEMIC SERVICES

### Conference Committee

iiWAS/MoMM 2025 - PC Member  
ACM ISS 2024 - Web Chair  
IEEE ISMAR 2023 - Web Chair

### Paper Reviewer

ACM CHI 2020 (LBW), 2023, 2024, 2025  
IEEE ISMAR 2025  
IEEE VR 2021, 2025  
IEEE VIS 2024  
ACM ISS 2021, 2022

### Workshop Organiser

ACM CHI 2022  
Monash Take CRTL 2021

### Student Volunteer

IEEE VIS 2021, 2022  
ACM CHI 2020

## RESEARCH PAPERS (CONT.)

Jiazhou Liu, Arnaud Prouzeau, Barrett Ens, and Tim Dwyer, Effects of Display Layout on Spatial Memory for Immersive Environments. 2022 ACM Interactive Surfaces and Spaces Conference (ACM ISS 2022)

Rhys Newbury, Kadek Ananta Satriadi, Jesse Bolton, Jiazhou Liu, Maxime Cordeil, Arnaud Prouzeau, and Bernhard Jenny. Embodied Gesture Interaction for Immersive Maps. 2021 Cartography and Geographic Information Science (CGIS '21)

Jiazhou Liu, Arnaud Prouzeau, Barrett Ens, and Tim Dwyer. Design and Evaluation of Interactive Small Multiples Data Visualisation in Immersive Spaces. 2020 IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR '20) **[Best Paper Nomination]**

## DEMONSTRATION, POSTERS, AND WORKSHOP PROPOSALS

Jiazhou Liu, Aravinda S. Rao, Fucai Ke, Tim Dwyer, Benjamin Tag, Pari Delir Haghghi. AR-Facilitated Safety Inspection and Fall Hazard Detection on Construction Sites. 2024 IEEE International Symposium on Mixed and Augmented Reality.

Ang Li, Jiazhou Liu, Max Cordeil, Barrett Ens. Initial Evaluation of Immersive Gesture Exploration with GestureExplorer. 2022 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts. (IEEE VR '22)

Barrett Ens, Maxime Cordeil, Chris North, Tim Dwyer, Lonni Besançon, Arnaud Prouzeau, Jiazhou Liu, Andrew Cunningham, Adam Drogemuller, Kadek Ananta Satriadi, Bruce H Thomas. Immersive Analytics 2.0: Spatial and Embodied Sensemaking. In CHI Conference on Human Factors in Computing Systems (ACM CHI '22)

## TALKS & PRESENTATIONS

### Conference Presentation

IEEE ISMAR 2024

ACM CHI 2023

MEL-CHI 2023

ACM ISS 2022

IEEE VR 2020

### Workshop Presentation

IEEE ISMAR 2024 - SafeAR

Monash Take CTRL 2021

### Guest Lecturer/Presentation

Monash FIT3179 Data Visualisation 2021, 2022

Monash FIT5147 Data Visualisation 2019 - 2022

## TECHNICAL SKILLS

### Proficient

Kotlin, Java, Swift, C#, Unity, Tableau, R, Vega-lite, JavaScript, D3, HTML, CSS, Adobe software, Python, AngularJS, NodeJS

### Familiar

Git, C, SQL, SharePoint, VUE, Flutter

## REFERENCES

### Prof. Tim Dwyer

Main Supervisor - Monash

Email: [tim.dwyer@monash.edu](mailto:tim.dwyer@monash.edu)

### Dr Pari Delir Haghghi

Industry-funded Project Leader - Monash

Email: [Pari.Delir.Haghghi@monash.edu](mailto:Pari.Delir.Haghghi@monash.edu)

### Dr Kadek Satriadi

Lecturer, Discipline Group Coordinator - Monash

Email: [kadek.satriadi@monash.edu](mailto:kadek.satriadi@monash.edu)

## TEACHING ACTIVITIES

### University of Melbourne

- COMP90044 Research Methods (**Tutor**) [2024]

### Monash University

- FIT2095 Full stack development (Chief Examiner, Lecturer) [2024 & 2025]
- FIT2081 Mobile Application Development (Lecturer) [2024 & 2025]
- FIT1050 Web Fundamentals (Lecturer) [2024]
- FIT3179 Data Visualisation (Tutor/Head Tutor) [2020 - 2025]
- FIT316X Computer Science Project (Supervisor) [2019, 2021 - 2022]
- FIT5147 Data Exploration and Visualisation (Tutor) [2022]
- FIT3175 Usability (Tutor) [2022]
- FIT5152 User Interface Design and Usability (Tutor) [2021]

## INDUSTRY EXPERIENCE

### IT Support SME (Casual)

Monash University, Clayton, VIC

2021 - 2023

### SharePoint Consultant/Front-end Developer (Full-time)

WebVine, Redfern, NSW

2015 - 2016

### Website Developer & Administrator (Full-time)

JJ Retails Pty. Ltd., Auburn, NSW

2015

### Network Technician (Full-time)

HBC International, Auburn, NSW

2014 - 2015

