YUEQING XUAN

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EDUCATION

PhD in Computer Science, RMIT University   **Aug 2022 – Jul 2026**

- **Supervisors**: A/Prof Jeffrey Chan and Prof Mark Sanderson.

Master of Information Technology, University of Melbourne   Feb 2020 – Jul 2022
Specialised in Artificial Intelligence

- **WAM**: 84.50
- **Relevant Coursework**: Natural Language Processing, Statistical Machine Learning, Computer Vision, AI Planning for Autonomy, Computational Modelling, etc.
- **Achievements:** Recognised on the *FEIT Dean's Honours List 2021* at the University of Melbourne. Awarded *Melbourne Graduate Scholarship - 2022*. Achieved First Class Honours (H1) in 79% of subjects.

Bachelor of Commerce, University of New South Wales   Jul 2015 – Jul 2018
Major in Accounting and Information Systems

- **WAM**: 74.5
- **Relevant Coursework**: Database Management and Big Data, Information System in Business, Business System Analysis, Programming for Business, etc.
- **Achievements:** High Distinction average in programming subjects, Distinction average in accounting subjects, Second place in COMP1531 (Software Engineering Fundamentals).

ACADEMIC PROJECTS

Research Project - Multi-modal Entity Linker, University of Melbourne   Jul 2021 – Nov 2021

- Proposed a multi-modal entity linker that recognises the target and/or receptacle objects within verbal commands through machine learning and performs visual-textual entity linking.
- Performed end-to-end evaluations on the voice-controlled robotic arm control framework.
- Supervised by Dr. Lea Frermann and Dr. Adi Tarigoppula.
- Achieved 91 (First Class Honours) in this research project.

Rumour Detection and Analysis on Twitter, University of Melbourne   May 2021

- Built a rumour classification model via BERT in PyTorch for detection of rumour tweets.
- Applied the classifier to analyse the characteristics of COVID-related rumours on Twitter.
- Ranked in the top 15% on the leaderboard.

Autonomous Player in Game Sequence, University of Melbourne   May 2021

- Implemented an autonomous agent based on reinforcement learning, which can play in the game Sequence.
- Ranked in the top 10% in the final competition.

COVID-19 Transmission Model, University of Melbourne   Oct 2020

- Created an agent-based model in NetLogo to investigate the role of asymptomatic individuals in spreading COVID-19.
- Designed experiments to explore the effectiveness of isolation for disease control.

Event Management System, UNSW May 2018

- Developed an Event Management System in Python and HTML that features event creation and registration for UNSW staff and students.
- Achieved High Distinction in this project.

WORK EXPERIENCE

Tutor Apr 2022 – May 2022

JR Academy, Melbourne

- Teaching and assisting students in disciplines related to machine learning.

Casual Research Assistant Nov 2019

The University of Melbourne, Melbourne

- Worked on the research project: Humanoid robotic arm control through verbal commands.
- Successfully integrated the Porcupine wake word engine and IBM Watson speech recognition system into the robotic arm control framework, and integrated the framework with the anthropomorphic robotic limb.
- Controlled and interacted with the humanoid robot for real-time control using verbal (natural language) commands.

IT Support and Business Analyst Internship Mar 2019 – May 2019

The Altius Group, Sydney

- Effectively managed, configured, and troubleshoot a range of IT-related systems.
- Responsibly implemented and administrated database documentation, guidelines, policies, and procedures.
- Performed application and hardware configuration deployment and troubleshooting.

GIS Data Processing Internship Nov 2016 – Feb 2017

Shanghai Institute of Technical Physics of the Chinese Academy of Sciences, Shanghai

- Worked effectively in the Big Data team to analyse Geographic Information System (GIS) data by utilising the ContextCapture software.
- Designed and maintained database architecture, data structures, tables, dictionaries, and naming conventions to ensure the accuracy and completeness of all data master files.

TECHNICAL SKILLS

Programming Languages:	Python (PyTorch, Keras, OpenCV, Scikit-learn, NumPy, Pandas), Java, C, JavaScript, NetLogo
Database Management Systems:	Oracle Database
Business Intelligence Software:	SAP Lumira, SAS, Power BI

LANGUAGE

- **English:** Pearson Test of English (Academic) - achieved 90 overall (IELTS Equivalent: Band 9), at least 83 for each of the 4 test components.
- **Mandarin:** Native speaker.