

Ashkan Y. Zadeh

Queensland University of Technology (QUT) – Brisbane, QLD, Australia
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AI & Automated Vehicles Researcher

Research Interests

Automated Vehicles, Human-Centred AI, Explainable AI, Natural Language Processing, Large Language Models, Human-Machine Interaction (HMI)

Education

Queensland University of Technology

PhD, Computer Science

Thesis: A Model for Generating Human-Centric Explanations for Automated Vehicles

Brisbane, QLD

2023–Present

University of Guilan

MSc, Mechanical Engineering (Dynamics & Control Systems)

Thesis: Safety and Energy Management System Control of Hybrid Autonomous Vehicles

Iran

2019–2022

Islamic Azad University

BSc, Mechanical Engineering

Final Project: Mechanical Design of a Robotic Manipulator Arm with SolidWorks

Iran

2013–2018

Work Experience

IEEE Consumer Technology Society

Automotive CE Applications Technical Committee Member

Committee member for automotive consumer electronics applications

Australia · Remote

Jan 2025–Present

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IEEE Vehicular Technology Society

AdHoc Committee on Autonomous Vehicles

Committee focused on autonomous vehicle technology

Australia · Remote

Sep 2024–Present

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QUT (Queensland University of Technology)

Tutor

○ “EGB 103 - Computing and Data for Engineers” Course - QUT

○ “EGD 103 - Computing and Data for Engineers” Course - QUT College

Brisbane, QLD · On-site

Feb 2024–Present

ARC Training Centre for Automated Vehicles in Rural and Remote Regions (AVR3)

Doctoral Researcher

Jun 2023–Present

○ Formerly Centre for Accident Research & Road Safety – Queensland (CARRS-Q)

○ Thesis: A Model for Generating Human-Centric Explanations for Automated Vehicles

○ Supervisors: Dr. Xiaomeng Li, Prof. Andry Rakotonirainy, Prof. Ronald Schroeter, Prof. Sébastien Glaser

IEEE

Peer Reviewer

Apr 2022–Present

○ IEEE Transactions on Intelligent Transportation Systems

○ IEEE Access

HeyvaAI

Python Developer

Iran

Nov 2022–Mar 2023

○ Responsible for coding, deploying, and debugging development AI projects

Cheetah Research Center

R&D Expert in Autonomous Vehicles

Iran

Nov 2022–Dec 2022

○ Autonomous Vehicles Research Institute of University of Tehran (Cheetah)

Skills

Programming: Python, MATLAB

Computational: Machine Learning, Neural Networks, NLP, LLMs, Fuzzy Logic, Evolutionary Algorithms

Simulation: Simulink

Soft Skills: Time Management, Teamwork, Problem-Solving, Documentation, Engaging Presentation

Other: Linux, ROS, Microsoft Office, Git

Selected Publications

2026: Yousefi Zadeh, A., Li, X., Rakotonirainy, A., Schroeter, R., Glaser, S & Z. Zhu. "X-Blocks: Linguistic Building Blocks of Natural Language Explanations for Automated Vehicles". *Knowledge-Based Systems*, Elsevier, **Submitted. Preprint**

2025: Yousefi Zadeh, A., Li, X., Rakotonirainy, A., Schroeter, R., & Glaser, S. "PsyLingXAV: A Psycholinguistics Design Framework for XAI in Automated Vehicles". *XAI-2025 (The 3rd World Conference on eXplainable Artificial Intelligence)*, [Link](#)

2024: Yousefi Zadeh, A., Jamali, A., Mallipeddi, R., & Khayyam, H. "Integrated Intelligent Control Systems for Eco and Safe Driving in Autonomous Vehicles". *IEEE Transactions on Intelligent Transportation Systems*. **DOI: 10.1109/TITS.2024.3479332**

2024: Mehraban, Z., Yousefi Zadeh, A., Jamali, A., Mallipeddi, R., & Khayyam, H. "Fuzzy Adaptive Cruise Control with Model Predictive Control for Automated Driving". *Engineering Applications of Artificial Intelligence*. [Link](#)

Achievements

2024: IEEE Scholarship: Recipient of IEEE Academia-Industry Summer School (AISS) on "Towards Human-Centric Artificial Intelligence (AI)-empowered Autonomy", Swinburne University of Technology, VIC

2023: CARRS-Q Team Member: Nudgeathon 2023 (Behavioural Economics Competition), Brisbane, QLD

2023: QUT Runner-Up: 2023 Visualise Your Thesis Competition, Brisbane, QLD

2023: QUT Faculty of Health Finalist: 2023 Visualise Your Thesis Competition, Brisbane, QLD

2023–2024: Postgraduate Research Scholarship: 2023 ARC Postgraduate Research Stipend, 2024 QUT Postgraduate Research Award (QUTPRA), Brisbane, QLD

2020: Data Science Badges: The International Business Machines Corporation (IBM)

2019–2022: Top 15% Students: Ranked within the top 15% GPA among the graduating class in the Dynamics and Control division, University of Guilan, Iran

Certificates

2024: IEEE Academia-Industry Summer School (AISS) on "Towards Human-Centric AI-empowered Autonomy", IEEE Systems, Man, and Cybernetics Society

2022: An introduction to peer review, Web of Science Academy

2021: Machine Learning Summer School (MLSS), MLSS 2021 Taipei, August 2-20

2021: Introduction to Self-Driving Cars, University of Toronto - Coursera

2021: Robotics Spring Workshop, Sharif University of Technology

2020: AI and Deep Learning methods in Autonomous Robotics, ARAS (Advanced Robotics and Automated System) | K. N. Toosi University of Technology

2020: IBM Data Science Professional Certificate, IBM-Coursera

2020: Intermediate Machine Learning, Kaggle

2019: Foundations of Data Science: Computational Thinking with Python, University of California, Berkeley -

edX

2019: Python for Data Science, University of Tehran

Interests

Engineering: Automated Vehicles, Machine/Deep Learning, XAI, NLP, User-Centred Studies

Technical Writing: Writing scientific articles and peer review scientific papers

Sports: Martial arts, mountaineering, nature tourism

Languages

English: Professional proficiency

Persian: Native proficiency

