

KAVISHA VIDANAPATHIRANA

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EDUCATION

PhD. Computer Vision and Robotics Queensland University of Technology in collaboration with CSIRO Robotics.	<i>Jan 2020 - Oct 2024</i>
BSc. Eng. (Hons.) Electronic and Telecommunication Engineering University of Moratuwa, Sri Lanka	<i>Oct 2014 - Dec 2018</i> First Class

PROFESSIONAL EXPERIENCE

Postdoctoral Research Fellow Australian Centre for Robotics, University of Sydney	<i>May 2025 - Present</i>
Research Assistant The Australian Institute for Machine Learning, University of Adelaide	<i>Oct 2024 - Mar 2025</i>
Research Intern The Australian Institute for Machine Learning, University of Adelaide	<i>Oct 2022 - May 2023, Jan - Sep 2024</i>
Lecturer (Sessional) Department of Electronic & Telecommunication Engineering, University of Moratuwa	<i>Jul 2019 - Jan 2020</i>
Instructor Department of Electronic & Telecommunication Engineering, University of Moratuwa	<i>Feb - Jul 2019</i>
Trainee Associate Electronics Engineer Zone24x7 Pvt. Ltd.	<i>Jun - Dec 2017</i>

TECHNICAL SKILLS & COMPETENCIES

Programming	python, C++, Matlab
Libraries & tools	pytorch, tensorflow, ROS
Research Experience	3D Vision: <i>representation learning, scene flow, tracking, segmentation.</i> Machine Learning: <i>design of architectures, loss functions, benchmarks.</i> <i>Implicit neural representations. Transformer networks.</i> Mobile Robotics (hardware+software): <i>metric localization, path planning.</i>

STANDARDIZED TESTS

- GRE General Test: VR: 160, QR: 168, AW: 5.0 (August 2019)
- IELTS Academic: 8.5 Overall, CEFR Level C2 (February 2024)

AWARDS & HONOURS

- ICRA 2022 - 2nd place in the General Place Recognition Competition organized by AirLab, Carnegie Mellon University. [Invited talk](#).
- CSIRO Data61 PhD Top-Up Scholarship 2020
- High Distinction - Sri Lanka Mathematical Olympiad 2012

PUBLICATION LIST

- **K. Vidanapathirana***, J. Knights*, S. Hausler*, M. Cox, M. Ramezani, J. Jooste, E. Griffiths, S. Mohamed, S. Sridharan, C. Fookes, P. Moghadam. ‘WildScenes: A benchmark for 2D and 3D semantic segmentation in large-scale natural environments’, *The International Journal of Robotics Research (IJRR)*. *Equal contribution. ([publication](#), [project page](#))
- **K. Vidanapathirana**, S. Ch’ng, X. Li, S. Lucey. ‘Multi-Body Neural Scene Flow’, *2024 International Conference on 3D Vision (3DV) (Oral - top 6.6%)*. ([publication](#), [project page](#))
- **K. Vidanapathirana**, P. Moghadam, S. Sridharan, C. Fookes. ‘Spectral Geometric Verification: Re-Ranking Point Cloud Retrieval for Metric Localization’, *2023 IEEE Robotics and Automation Letters (RA-L) + Selected for ICRA 2024 Oral presentation*. ([publication](#), [project page](#))
- J. Knights*, **K. Vidanapathirana***, M. Ramezani, P. Moghadam, S. Sridharan, C. Fookes. ‘Wild-Places: A Large-Scale Dataset for Lidar Place Recognition in Unstructured Natural Environments’, *2023 IEEE International Conference on Robotics and Automation (ICRA)*. *Equal contribution and joint first-author. ([publication](#), [project page](#))
- **K. Vidanapathirana**, M. Ramezani, P. Moghadam, S. Sridharan, C. Fookes. ‘LoGG3D-Net: Locally Guided Global Descriptor Learning for 3D Place Recognition’, *2022 IEEE International Conference on Robotics and Automation (ICRA) (Oral presentation - virtual)*. ([publication](#), [project page](#))
- **K. Vidanapathirana**, P. Moghadam, B. Harwood, M. Zhao, S. Sridharan, C. Fookes. ‘Locus: LiDAR-based Place Recognition using Spatiotemporal Higher-Order Pooling’, *2021 IEEE International Conference on Robotics and Automation (ICRA) (Oral presentation - virtual)*. ([publication](#), [project page](#))
- D. Ranasinghe, **K. Vidanapathirana**, T. Wickramarachchi, K. Katuwandeniya, P. Jayasekara, S. Ajisaka. ‘Development of a Lightweight, Low-cost, Self-balancing Personal Mobility Vehicle for Autonomous Indoor Navigation’, *In 2019 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM) (Oral presentation)*. ([publication](#), [project page](#))

REVIEWER ACTIVITY

Journals	T-RO, RA-L, Pattern Recognition, P&RS.
Conferences	[Robotics]: CoRL, ICRA, IROS. [Computer Vision]: CVPR, ICCV, ECCV, ACCV.