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RESEARCH INTERESTS

Human-robot collaboration, knowledge representation and reasoning, cognitive systems, machine learning, and control systems.

My primary research interests include knowledge representation and reasoning, cognitive systems, machine learning, and control systems, as applied to adaptive robots and agents collaborating with humans. I design algorithms and architectures that: (a) represent and reason with qualitative and quantitative descriptions of commonsense domain knowledge and uncertainty; (b) learn interactively and cumulatively based on multimodal sensor cues obtained from the environment and humans; and (c) enable designers to understand the robot's behavior and establish that it satisfies desired properties. Furthermore, I am interested in developing algorithms that support automation in domains such as climate informatics, agricultural irrigation management, and intelligent transportation.

EDUCATION

- *5/04–8/07:* PhD in Electrical and Computer Engineering at The University of Texas at Austin. GPA: 4.0. **Robust Autonomous Structure-Based Color Learning on a Mobile Robot.** *Advisors:* Dr. Peter Stone and Dr. Benjamin Kuipers.
- *8/01–5/04:* M.S. (thesis option) in Electrical and Computer Engineering at The University of Texas at Austin. GPA: 4.0. **Human Skin Recognition in Color Images using Multi-Level Decision Trees.** *Advisor:* Dr. J. K. Aggarwal.
- *7/97–5/01:* B.E in Electrical Engineering from University of Madras, India. GPA: 87%.

ACADEMIC APPOINTMENTS & RESEARCH EXPERIENCE

- *January 2024—present:* **Chair in Robot Systems**, School of Informatics, University of Edinburgh (UK).
- *January 2024—present:* **Honorary Professor in Robot Systems**, School of Computer Science, University of Birmingham (UK).
- *August 2021—December 2023* **Reader in Cognitive Robot Systems**, School of Computer Science, University of Birmingham (UK).
- *April 2018—July 2021:* **Senior Lecturer in Intelligent Systems**, School of Computer Science, University of Birmingham (UK).

- *June 2018—June 2022:* **Honorary Senior Lecturer**, Department of Electrical and Computer Engineering, The University of Auckland (NZ).
- *June 2014—June 2018:* **Senior Lecturer**, Department of Electrical and Computer Engineering, The University of Auckland (NZ).
- *June 2014—June 2018:* **Adjunct Associate Professor**, Department of Mathematics and Statistics, Texas Tech University (USA).
- *October 2008—May 2014:* **Assistant Professor** (tenure-track), Department of Computer Science, Texas Tech University (USA).
- *August 2007—October 2008:* **Research Fellow**, School of Computer Science, University of Birmingham (UK), on the EU FP6 Cognitive Systems project. *Supervisors:* Dr. Jeremy Wyatt, Dr. Richard Dearden and Dr. Aaron Sloman.
- *September 2007—December 2008:* **Research Consultant**, Stone Aerospace (USA), ENDURANCE project. *Supervisor:* Dr. William Stone.
- *May 2004—August 2007:* **Graduate Research Assistant**, Department of Computer Science, The University of Texas at Austin (USA). *Supervisor:* Dr. Peter Stone.
- *January—June 2006:* **Research Scientist**, University of Pennsylvania. *Supervisor:* Dr. Daniel Lee. I contributed to the DARPA *Learning Applied to Ground Robots* (LAGR) project by developing algorithms that enabled a robot vehicle to navigate safely in an unknown outdoor environment.
- *September 2001—May 2004:* **Graduate Research Assistant**, Computer Vision Research Center (CVRC), The University of Texas at Austin (USA). *Supervisor:* Dr. J. K. Aggarwal.

PUBLICATIONS

- **Book Chapters and Monographs:**

(BC.5) Mohan Sridharan. **Integrated Knowledge-based Reasoning and Data-driven Learning for Explainable Agency in Robotics.** In David Aha and Silvia Tulli (editors), *Explainable Agency in Artificial Intelligence: Research and Practice*, CRC Press, 2024.

(BC.4) *Mohan Sridharan*, Prashanth Devarakonda, and Rashmica Gupta. **Can I Do That? Discovering Domain Axioms Using Declarative Programming and Relational Reinforcement Learning.** In Nardine Osman and Carles Sierra (editors), *Visionary Papers of the Autonomous Agents and Multiagent Systems (AAMAS) 2016 Workshops*, pages 34-49 (196), Springer Lecture Notes in Artificial Intelligence (LNAI), 2016. *(Undergraduate student research)*

(BC.3) Mohan Sridharan. **An Integrated Framework for Robust Human-Robot Interaction.** In Jose Garcia-Rodriguez and Miguel Cazorla (editors), *Robotic Vision: Technologies for Machine Learning and Vision Applications*, pages 281–301 (535), IGI Global, 2013 (Web: Dec 28, 2012).

(BC.2) Nick Hawes, Jeremy Wyatt, *Mohan Sridharan*, Henrik Jacobsson, Richard Dearden, Aaron Sloman and Geert-Jan Kruijff. **Architecture and Representations.** In Henrik I. Christensen and Geert-Jan M. Kruijff and Jeremy L. Wyatt (editors), *Cognitive Systems*, volume 8 of Cognitive Systems Monographs, pages 51–93, Springer Berlin Heidelberg, April 2010.

(BC.1) Nick Hawes, Jeremy Wyatt, *Mohan Sridharan*, Marek Kopicki, Somboon Hongeng, Ian Calvert, Aaron Sloman, Geert-Jan Kruijff, Henrik Jacobsson, Michael Brenner, Danijel Skocaj, Alen Vrecko, Nikodem Majer and Michael Zillich. **The PlayMate System.** In Henrik I. Christensen and Geert-Jan M. Kruijff and Jeremy L. Wyatt (editors), *Cognitive Systems*, volume 8 of Cognitive Systems Monographs, pages 367–393, Springer Berlin Heidelberg. April 2010.

- **Journals:**

(J.25) Laura Ferrante, Mohan Sridharan, Claudio Zito, and Dario Farina. **Toward Impedance Control in Human-Machine Interfaces for Upper-limb Prostheses**. In the *IEEE Transactions on Biomedical Engineering (TBME)*, 2024 (to appear).

(J.24) Jack Collins, Mark Robson, Jun Yamada, *Mohan Sridharan*, Karol Janik, and Ingmar Posner. **RAMP: A Benchmark for Evaluating Robotics Assembly Manipulation and Planning**. In *Robotics and Automation Letters (RA-L)*, 9(1): 9-16, January 2024.

(J.23) Hasra Dodampegama and *Mohan Sridharan*. **Knowledge-based Reasoning and Learning under Partial Observability in Ad Hoc Teamwork**. In *Theory and Practice of Logic Programming*, 23(4):696-714, 2023.

(J.22) *Mohan Sridharan* and Tiago Mota. **Towards Combining Commonsense Reasoning and Knowledge Acquisition to Guide Deep Learning**. In *Journal of Autonomous Agents and Multi-Agent Systems*, 37(4):1-41, 2023.

(J.21) Shiqi Zhang and *Mohan Sridharan*. **A Survey of Knowledge-based Sequential Decision Making under Uncertainty**. In *Artificial Intelligence Magazine*, 43(2):249-266, 2022.

(J.20) Tiago Mota, *Mohan Sridharan*, and Ales Leonardis. **Integrated Commonsense Reasoning and Deep Learning for Transparent Decision Making in Robotics**. In *Springer Nature Computer Science*, 2(242), 2021.

(J.19) Daniele Meli, *Mohan Sridharan*, and Paolo Fiorini. **Inductive Learning of Answer Set Programs for Autonomous Surgical Task Planning: Application to a Training Task for Surgeons**. In *Machine Learning Journal, Special issue on Learning and Reasoning*, 110: 1739-1763, July 2021.

(J.18) Angel Daruna, Mehul Gupta, *Mohan Sridharan*, and Sonia Chernova. **Continual Learning of Knowledge Graph Embeddings**. In *Robotics and Automation Letters* (RA-L), 6(2): 1128-1135, April 2021.

(J.17) Rocio Gomez, *Mohan Sridharan* and Heather Riley. **What do you really want to do? Towards a Theory of Intentions for Human-Robot Collaboration.** In the *Annals of Mathematics and Artificial Intelligence, Special issue on Commonsense Reasoning*, 89(1): 179-208, February 2021.

(J.16) Rivindu Weerasekera, *Mohan Sridharan* and Prakash Ranjitkar. **Implications of Spatio-temporal Data Aggregation on Short-term Traffic Prediction using Machine Learning Algorithms.** In the *Journal of Advanced Transportation*, Article ID: 7057519, 21 pages, 2020.

(J.15) Heather Riley and *Mohan Sridharan*. **Integrating Non-monotonic Logical Reasoning and Inductive Learning With Deep Learning for Explainable Visual Question Answering**. In *Frontiers in Robotics and AI, special issue on Combining Symbolic Reasoning and Data-Driven Learning for Decision-Making*, Volume 6, December 2019.

(J.14) *Mohan Sridharan* and Ben Meadows. **Towards a Theory of Explanations for Human-Robot Collaboration**. In the *Kunstliche Intelligenz* Journal, 33(4):331-342, December 2019.

(J.13) *Mohan Sridharan*, Michael Gelfond, Shiqi Zhang, and Jeremy Wyatt. **REBA: Refinement-based Architecture for Knowledge Representation and Reasoning in Robotics.** In the *Journal of Artificial Intelligence Research*, 65:87-180, June 2019.

(J.12) *Mohan Sridharan* and Ben Meadows. **Knowledge Representation and Interactive Learning of Domain Knowledge for Human-Robot Interaction.** In the *Advances in Cognitive Systems* Journal, 7:69-88, December 2018.

(J.11) Ben Meadows, *Mohan Sridharan* and Zenon Colaco. **Towards an Explanation Generation System for Robots: Analysis and Recommendations.** In the *Robotics* Journal, 5(4), 21 pages, December 2016.

(J.10) Shiqi Zhang, *Mohan Sridharan* and Jeremy Wyatt. **Mixed Logical Inference and Probabilistic Planning for Robots in Unreliable Worlds.** In the *IEEE Transactions on Robotics (T-RO)*, 31(3): 699-713, June 2015.

(J.9) Daniel Holman, *Mohan Sridharan*, Prasanna Gowda, Dana Porter, Thomas Marek, Terry Howell and Jerry Moorhead. **Gaussian Process Models for Reference ET Estimation from Alternative Meteorological Data Sources.** In the *Journal of Hydrology*, 517: 28-35, September 2014.

(J.8) Shiqi Zhang, *Mohan Sridharan* and Christian Washington. **Active Visual Planning for Mobile Robot Teams using Hierarchical POMDPs.** In the *IEEE Transactions on Robotics (T-RO)*, 29 (4): 975-985, August 2013.

(J.7) William C. Stone, Bartholomew Hogan, Christopher Flesher, Shilpa Gulati, Kristof Richmond, Aniket Murarka, Greg Kuhlmann, *Mohan Sridharan*, Victoria Siegel, Rachel Middleton Price, Peter Doran and John Priscu. **Design and Deployment of a 4DOF Hovering AUV for Sub-Ice Exploration and Mapping.** In the *Proceedings of the Institution of Mechanical Engineers, Part M: Journal of Engineering for the Maritime Environment*, 224 (4): 341-361, 2010.

(J.6) Mohan Sridharan, Jeremy Wyatt and Richard Dearden. **Planning to See: A Hierarchical Approach to Planning Visual Action on a Robot using POMDPs.** In the *Artificial Intelligence* Journal, 174 (11): 704-725, July 2010.

(J.5) Mohan Sridharan. **Bootstrap Learning and Visual Processing Management on Mobile Robots.** In the Advances in Artificial Intelligence Journal Special Issue on *Artificial Intelligence in Neuroscience and Systems Biology: Lessons Learned, Open Problems, and the Road Ahead*, Vol 2010, Article ID 765876, 20 pages, February 2010.

(J.4) Mohan Sridharan and Peter Stone. **Color Learning and Illumination Invariance on Mobile Robots: A Survey.** In the *Robotics and Autonomous Systems* Journal, 57(6-7): 629-644, June 2009.

(J.3) Mohan Sridharan and Peter Stone. **Structure-Based Color Learning on a Mobile Robot under Changing Illumination.** In the *Autonomous Robots* Journal, 23(3): 161-182, October 2007.

(J.2) Mohan Sridharan and Peter Stone. **Planning Actions to Enable Color Learning on a Mobile Robot.** In the Special Issue on *Visual Information Processing*, Information and Systems Sciences Journal, 3(3): 510-525, 2007.

(J.1) Peter Stone, *Mohan Sridharan*, Daniel Stronger, Gregory Kuhlmann, Nate Kohl, Peggy Fidelman and Nick Jong. **From Pixels to Multi-Robot Decision-Making: A Study in Uncertainty.** In the Robotics and Autonomous Systems (RAS) Journal Special Issue on *Planning Under Uncertainty in Robotics*, 54(11): 933-943, November 2006.

- <u>**Refereed Conferences:**</u>

(C.57) Raghav Arora, Shivam Singh, Karthik Swaminathan, Snehasis Banerjee, Brojeshwar Bhowmick, Krishna Murthy Jatavallabhula, *Mohan Sridharan*, and Madhava Krishna. **Anticipate & Act: Integrating LLMs and Classical Planning for Efficient Task Execution in Household Environments**. In the *IEEE International Conference on Robotics and Automation* (ICRA), May 13-17, 2024, Yokohoma, Japan.

(C.56) Ayush Agrawal, Raghav Arora, Ahana Datta, Snehasis Banerjee, Brojeshwar Bhowmick, Krishna Murthy Jatavallabhula, *Mohan Sridharan*, and Madhava Krishna. **CLIPGraphs: Multimodal Graph Networks to Infer Object-Room Affinities**. In the *IEEE International Conference on Robot and Human Interactive Communication* (RO-MAN), August 28-31, 2023, Busan, Korea.

(C.55) Hasra Dodampegama and *Mohan Sridharan*. **Knowledge-based Reasoning and Learning under Partial Observability in Ad Hoc Teamwork**. In *International Conference on Logic Programming* (ICLP), July 9-15, 2023, London, UK.

(C.54) Nandiraju Gireesh, Ayush Agrawal, Ahana Datta, Snehasis Banerjee, *Mohan Sridharan*, Brojeshwar Bhowmick, and Madhava Krishna. **Sequence-Agnostic Multi-Object Navigation**. In the *IEEE International Conference on Robotics and Automation* (ICRA), May 29-June 2, 2023, London, UK.

(C.53) Hasra Dodampegama and *Mohan Sridharan*. **Back to the Future: Toward a Hybrid Architecture for Ad Hoc Teamwork**. In the *AAAI Conference on Artificial Intelligence* (AAAI), February 7-14, 2023, Washington DC, USA.

(C.52) Nandiraju Gireesh, D. A. Sasi Kiran, Snehasis Banerjee, *Mohan Sridharan*, Brojeshwar Bhowmick, and Madhava Krishna. **Object Goal Navigation using Data Regularized Q-Learning**. In the *IEEE International Conference on Automation Science and Engineering* (CASE), August 20-24, 2022, Mexico City, Mexico.

(C.51) D. A. Sasi Kiran, Kritika Anand, Chaitanya Kharyal, Gulshan Kumar, Nandiraju Gireesh, Snehasis Banerjee, Ruddra dev Roychoudhury, *Mohan Sridharan*, Brojeshwar Bhowmick, and Madhava Krishna. **Spatial Relation Graph and Graph Convolutional Network for Object Goal Navigation**. In the *IEEE International Conference on Automation Science and Engineering* (CASE), August 20-24, 2022, Mexico City, Mexico.

(C.50) Mark Robson and *Mohan Sridharan*. **A Keypoint-based Object Representation for Generating Task-specific Grasps**. In the *IEEE International Conference on Automation Science and Engineering* (CASE), August 20-24, 2022, Mexico City, Mexico.

(C.49) Pat Langley and *Mohan Sridharan*. **Scaling Challenges in Explanatory Reasoning**. In the *Annual Conference on Advances in Cognitive Systems* (ACS), November 15-18, 2021, Online.

(C.48) Saif Sidhik, *Mohan Sridharan*, and Dirk Ruiken. **Towards a Framework for Changing-Contact Robot Manipulation**. In the *IEEE/RSJ International Conference on Intelligent Robots and Systems* (IROS), September 27-October 1, 2021, Prague, Czech Republic.

(C.47) Tiago Mota and *Mohan Sridharan*. **Answer me this: Constructing Disambiguation Queries for Explanation Generation in Robotics**. In the *International Conference on Development and Learning* (ICDL), August 23-26, 2021, Beijing, China.

(C.46) Keith Jones, Dennis Harris, Barbara Cherry, and *Mohan Sridharan*. **A Qualitative Study of Caregiving in Support of Aging in Place to Inform Analyses of Caregivers Work and Design of Robot Caregivers**. In the *Advances in Human Factors and Ergonomics in Healthcare and Medical Devices* (AHFE), July 25-29, 2021, New York, USA.

(C.45) Angel Daruna, Mehul Gupta, *Mohan Sridharan*, and Sonia Chernova. **Continual Learning of Knowledge Graph Embeddings**. In the *International Conference on Robotics and Automation* (ICRA, conference presentation of RA-L article), May 30-June 5, 2021, Xi'an, China.

(C.44) Daniele Meli, Paolo Fiorini, and *Mohan Sridharan*. **Towards Inductive Learning of Surgical Task Knowledge: A Preliminary Case Study of the Peg Transfer Task.** In the *International Conference on Knowledge-Based and Intelligent Information and Engineering Systems*, September 16-18, 2020.

(C.43) Saif Sidhik, *Mohan Sridharan*, and Dirk Ruiken. **Learning Hybrid Models for Variable Impedance Control of Changing-Contact Manipulation Tasks.** In the *Annual Conference on Advances in Cognitive Systems*, August 10-12, 2020, Palo Alto, USA.

(C.42) Heather Riley and *Mohan Sridharan*. **Integrating Deep Learning and Non-monotonic Logical Reasoning for Explainable Visual Question Answering.** In the *European Conference on Multiagent Systems* (published papers track), July 13-15, 2020, Thessaloniki, Greece.

(C.41) Rocio Gomez, *Mohan Sridharan*, and Heather Riley. **Towards a Theory of Intentions for Human-Robot Collaboration.** In the *European Conference on Multiagent Systems* (published papers track), July 13-15, 2020, Thessaloniki, Greece.

(C.40) Tiago Mota and *Mohan Sridharan*. **Commonsense Reasoning and Deep Learning for Transparent Decision Making in Robotics.** In the *European Conference on Multiagent Systems*, July 13-15, 2020, Thessaloniki, Greece.

(C.39) Michael Mathew, Saif Sidhik, *Mohan Sridharan*, Morteza Azad, Akinobu Hayashi, and Jeremy Wyatt. **Online Learning of Feed-Forward Models for Task-Space Variable Impedance Control.** In the *International Conference on Humanoid Robots*, October 15-17, 2019, Toronto, Canada.

(C.38) Tiago Mota and *Mohan Sridharan*. **Commonsense Reasoning and Knowledge Acquisition to Guide Deep Learning on Robots.** In the *Robotics: Science and Systems* Conference, June 22-26, 2019, Freiburg, Germany. *(Finalist for Best Paper Award and Best Student Paper Award)*

(C.37) Heather Riley and *Mohan Sridharan*. **Non-monotonic Logical Reasoning and Deep Learning for Explainable Visual Question Answering.** In the *International Conference on Human Agent Interaction (HAI)*, December 15-18, 2018, Southampton, UK.

(C.36) Tiago Mota and *Mohan Sridharan*. **Incrementally Grounding Expressions for Spatial Relations between Objects.** In the *International Joint Conference on Artificial Intelligence (IJCAI)*, July 13-19, 2018, Stockholm, Sweden.

(C.35) *Mohan Sridharan* and Ben Meadows. **Learning Affordances for Assistive Robots.** In the *International Conference on Social Robotics (ICSR)*, November 22-24, 2017, Tsukuba, Japan.

(C.34) Lars Kunze, *Mohan Sridharan*, Christos Dimitrakakis and Jeremy Wyatt. **Adaptive Sampling-based View Planning under Time Constraints.** In the *IEEE European Conference on Mobile Robotics (ECMR)*, September 6-8, 2017, Paris, France.

(C.33) *Mohan Sridharan*, Ben Meadows and Rocio Gomez. **What can I not do? Towards an Architecture for Reasoning about and Learning Affordances.** In the *International Conference on Automated Planning and Scheduling (ICAPS)*, June 18-23, 2017, Pittsburgh, USA.

(C.32) *Mohan Sridharan* and Ben Meadows. **A Combined Architecture for Discovering Affordances, Causal Laws, and Executability Conditions.** In the *International Conference on Advances in Cognitive Systems (ACS)*, May 12-14, 2017, Troy, USA.

(C.31) *Mohan Sridharan* and Ben Meadows. **Should I do that? Using Relational Reinforcement Learning and Declarative Programming to Discover Domain Axioms.** In the *International Conference on Development and Learning and Epigenetic Robotics (ICDL-EpiRob)*, September 19-22, 2016, Cergy-Pontoise/Paris, France.

(C.30) *Mohan Sridharan*, Ben Meadows and Zenon Colaco. **A Tale of Many Explanations: Towards An Explanation Generation System for Robots.** In the *Intelligent Robotics and Multiagent Systems (IRMAS) track of the ACM/SIGAPP Symposium on Applied Computing (SAC)*, April 4-8, 2016, Pisa, Italy.

(C.29) Zenon Colaco and *Mohan Sridharan*. **What Happened and Why? A Mixed Architecture for Planning and Explanation Generation in Robotics.** In the *Australasian Conference on Robotics and Automation (ACRA)*, December 2-4, 2015, Canberra, Australia. *(Undergraduate student research)*

(C.28) Ranjini Swaminathan, *Mohan Sridharan*, Gill Dobbie and Katharine Hayhoe. **Modeling Ice Storm Climatology.** In the *28th Australasian Joint Conference on Artificial Intelligence (AusAI)*, November 30-December 4, 2015, Canberra, Australia.

(C.27) Batbold Myagmarjav and *Mohan Sridharan*. **Incremental Knowledge Acquisition for Human-Robot Collaboration.** In the *International Symposium on Robot and Human Interactive Communication (RO-MAN)*, August 31-September 3, 2015, Kobe, Japan.

(C.26) *Mohan Sridharan* and Sarah Rainge. **Integrating Reinforcement Learning and Declarative Programming to Learn Causal Laws in Dynamic Domains.** In the *International Conference on Social Robotics (ICSR)*, October 27-29, 2014, Sydney, Australia.

(C.25) Shiqi Zhang, *Mohan Sridharan*, Michael Gelfond and Jeremy Wyatt. **Towards An Architecture for Knowledge Representation and Reasoning in Robotics.** In the *International Conference on Social Robotics (ICSR)*, October 27-29, 2014, Sydney, Australia.

(C.24) Kimia Salmani and *Mohan Sridharan*. **Multi-Instance Active Learning with Online Labeling for Object Recognition.** In the *International Conference of the Florida Artificial Intelligence Research Society (FLAIRS)*, May 21-23, 2014, Pensacola Beach, USA. *(Best Paper Award)*

(C.23) Xiang Li and *Mohan Sridharan*. **Move and the Robot will Learn: Vision-based Autonomous Learning of Object Models.** In the *International Conference on Advanced Robotics (ICAR)*, November 25-29, 2013, Montevideo, Uruguay.

(C.22) Daniel Holman, *Mohan Sridharan*, Prasanna Gowda, Dana Porter, Thomas Marek, Terry Howell and Jerry Moorhead. **Estimating Reference Evapotranspiration for Irrigation Management in the Texas High Plains.** In the *International Joint Conference on Artificial Intelligence (IJCAI)*, August 3-9, 2013, Beijing, China.

(C.21) Shiqi Zhang, *Mohan Sridharan* and Forrest Sheng Bao. **ASP+POMDP: Integrating Non-Monotonic Logic Programming and Probabilistic Planning on Robots.** In the *International Conference on Development and Learning and Epigenetic Robotics (ICDL-EpiRob)*, November 7-9, 2012, San Diego, USA. *(Paper of Excellence Award)*

(C.20) Shiqi Zhang and *Mohan Sridharan*. **Active Visual Sensing and Collaboration on Mobile Robots using Hierarchical POMDPs.** In the *International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, June 4-8, 2012, Valencia, Spain.

(C.19) David South, Mary Shuman, *Mohan Sridharan* and Susan Urban. **Integration of the Alice 3D Programming Environment with Robotics to Stimulate Interest in Computing.** In the *National Conference on Undergraduate Research (NCUR)*, March 29-31, 2012, Ogden, USA. *(Undergraduate student research)*

(C.18) *Mohan Sridharan*. **Augmented Reinforcement Learning for Interaction with Non-Expert Humans in Agent Domains.** In the *International Conference on Machine Learning Applications (ICMLA)*, December 18-21, 2011, Honolulu, Hawaii.

(C.17) Barbara Millet, *Mohan Sridharan* and Yulin Wang. **Using Eye Gaze and a Disambiguation Algorithm to Enter Words.** In the *International Conference on Occupational Ergonomics and Safety (ISOES)*, June 9-10, 2011, Maryland, USA.

(C.16) Xiang Li, *Mohan Sridharan* and Shiqi Zhang. **Autonomous Learning of Vision-based Layered Object Models on Mobile Robots.** In the *International Conference on Robotics and Automation (ICRA)*, May 9-13, 2011, Shanghai, China.

(C.15) Shiqi Zhang, *Mohan Sridharan* and Xiang Li. **To Look or Not to Look: A Hierarchical Representation for Visual Planning on Mobile Robots.** In the *International Conference on Robotics and Automation (ICRA)*, May 9-13, 2011, Shanghai, China.

(C.14) Kshira Nadarajan and Mohan Sridharan. **Sensor-based Online Detection of Instabilities for Robust Teamwork in Humanoid Soccer Robots.** In the *National Conference on Undergraduate Research (NCUR)*, March 31-April 2, 2011, Ithaca, New York, USA.

(C.13) Xiang Li and Mohan Sridharan. **Safe Navigation on a Mobile Robot using Local and Temporal Visual Cues.** In the *International Conference on Intelligent Autonomous Systems (IAS)*, August 30-September 1, 2010, Ottawa, Canada.

(C.12) Shilpa Gulati, Kristof Richmond, Christopher Flesher, Bart Hogan, Aniket Murarka, Gregory Kuhlmann, *Mohan Sridharan* and William Stone. **Towards Autonomous Scientific Exploration of Ice-covered Lakes: Field Experiments with ENDURANCE AUV in an Antarctic Valley.** In the *IEEE International Conference on Robotics and Automation (ICRA)*, May 3-8, 2010, Anchorage, USA.

(C.11) Mohan Sridharan and Xiang Li. **Learning Sensor Models for Robust Information Fusion on a Humanoid Robot.** In the *IEEE-RAS International Conference on Humanoid Robots (Humanoids)*, December 7-10, 2009, Paris, France.

(C.10) Mohan Sridharan, Jeremy Wyatt and Richard Dearden. **HiPPo: Hierarchical POMDPs for Planning Information Processing and Sensing Actions on a Robot.** In the *International Conference on Automated Planning and Scheduling, (ICAPS)*, September 14-18, 2008, Sydney, Australia. *(Distinguished Paper Award)*

(C.9) Aniket Murarka, *Mohan Sridharan* and Benjamin Kuipers. **Detecting Obstacles and Drop-offs using Stereo and Motion Cues for Safe Local Motion.** In the *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, September 22-26, 2008, Nice, France.

(C.8) Mohan Sridharan and Peter Stone. **Long-term vs. Greedy Action Planning for Color Learning on a Mobile Robot.** In the *International Conference on Computer Vision Theory and Applications (VISAPP)*, January 22-25, 2008, Funchal, Portugal.

(C.7) Mohan Sridharan and Peter Stone. **Action Selection for Illumination Invariant Color Learning.** *In the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, October 29-November 2, 2007, San Diego, USA.

(C.6) Mohan Sridharan and Peter Stone. **Color Learning on a Mobile Robot: Towards Full Autonomy Under Changing Illumination.** In the *International Joint Conference on Artificial Intelligence (IJCAI)*, January 6-12, 2007, Hyderabad, India.

(C.5) Mohan Sridharan and Peter Stone. **Autonomous Planned Color Learning on a Mobile Robot Without Labeled Data.** In the *Ninth International Conference on Control, Automation, Robotics and Vision (ICARCV)*, December 5-8, 2006, Singapore.

(C.4) Mohan Sridharan and Peter Stone. **Real-Time Vision on a Mobile Robot Platform.** In the *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, August 2005, Edmonton, Canada.

(C.3) Mohan Sridharan and Peter Stone. **Autonomous Color Learning on a Mobile Robot.** In the *Twentieth National Conference on Artificial Intelligence (AAAI)*, July 2005, Pittsburgh, USA.

(C.2) Mohan Sridharan, Gregory Kuhlmann, and Peter Stone. **Practical Vision-Based Monte Carlo Localization on a Legged Robot.** In the *IEEE International Conference on Robotics and Automation (ICRA)*, April 2005, Barcelona, Spain.

(C.1) Mohan Sridharan and Peter Stone. **Towards On-Board Color Constancy on Mobile Robots.** In the *First Canadian Conference on Computer Vision (CRV)*, May 17-19, 2004, University of Western Ontario, London, Ontario, Canada.

- **Refereed Extended Abstracts and Short Papers:**

(AP.18) Mohan Sridharan. **Toward an Integrated Cognitive Architecture for Robots**. In the *AI and ML Theme* of *OR Society's Annual Conference* (OR65), September 12-14, 2023, Bath, UK.

(AP.17) Tiago Mota, *Mohan Sridharan*, and Ales Leonardis. **Extended Abstract: Non-monotonic Logical Reasoning and Deep Learning for Transparent Decision Making in Robotics**. In the **Recently Published Research** track of the *International Conference on Logic Programming* and the *International Conference on Principles of Knowledge Representation and Reasoning*, November 2021, Online.

(AP.16) *Mohan Sridharan.* **Integrated Commonsense Reasoning and Interactive Learning in Robotics**. In the *Workshop on Integrating Learning and Planning* and the *Workshop on Declarative and Neurosymbolic Representations in Robot Learning and Control* at *Robotics: Science and Systems Conference*, July 12 and 15, 2021, Online.

(AP.15) *Mohan Sridharan*, Michael Gelfond, Shiqi Zhang, and Jeremy Wyatt. **REBA: Refinement-based Architecture for Knowledge Representation and Reasoning in Robotics**. In the *Recently Published Research* track of the *International Conference on Principles of Knowledge Representation and Reasoning*, September 12-18, 2020, Online. (Also presented in the **Journal Presentation** track of the *International Conference on Automated Planning and Scheduling*)

(AP.14) *Mohan Sridharan*, Rocio Gomez, and Heather Riley. **What do you really want to do? Towards a Theory of Intentions for Human-Robot Collaboration**. In the *Recently Published Research* track of the *International Conference on Principles of Knowledge Representation and Reasoning*, September 12-18, 2020, Online.

(AP.13) *Mohan Sridharan* and Heather Riley. **Integrating Non-monotonic Logical Reasoning and Inductive Learning with Deep Learning for Explainable Visual Question Answering**. In the *Recently Published Research* track of the *International Conference on Principles of Knowledge Representation and Reasoning*, September 12-18, 2020, Online.

(AP.12) *Mohan Sridharan.* **REBA-KRL: Refinement-Based Architecture for Knowledge Representation, Explainable Reasoning, and Interactive Learning in Robotics.** In the *European Conference on Artificial Intelligence*, August 29-September 2, 2020, Online.

(AP.11) *Mohan Sridharan.* **Refinement-Based Architecture for Knowledge Representation, Explainable Reasoning and Interactive Learning in Robotics.** In the Workshop on *Reasoning about Actions and Processes* at ICAPS, July 2019, Berkeley, USA.

(AP.10) Michael Mathew, Saif Sidhik, *Mohan Sridharan*, Morteza Azad, Jeremy Wyatt, and Akinobu Hayashi. **Online Learning of Feed-Forward Models for Variable Impedance Control in Manipulation Tasks.** In the Workshop on *Emerging paradigms for robotic manipulation: from the lab to the productive world* at RSS-2019, June 23, 2019, Freiburg, Germany. *(Best Poster Award)*

(AP.9) Keith Jones, Barbara Cherry, Dennis Harris and *Mohan Sridharan.* **Formative Analysis of Aging in Place: Implications for the Design of Caregiver Robots.** In the *Human Factors and Ergonomics Society International Annual Meeting*, October 9-13, 2017, Austin, USA.

(AP.8) Pat Langley, Ben Meadows, *Mohan Sridharan* and Dongkyu Choi. **Explainable Agency for Intelligent Autonomous Systems.** In the *Twenty-Ninth Annual Conference on Innovative Applications of Artificial Intelligence (IAAI)*, February 4-9, 2017, San Francisco, USA.

(AP.7) Batbold Myagmarjav and *Mohan Sridharan.* **Incremental Knowledge Acquisition with Selective Active Learning.** In the *International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, May 4-8, 2015, Istanbul, Turkey.

(AP.6) Keith Jones, Barbara Cherry, and *Mohan Sridharan.* **Formative Work Analysis to Design Caregiver Robots.** In the *10th ACM/IEEE International Conference on Human-Robot Interaction (HRI)*, March 2-5, 2015, Portland, USA.

(AP.5) Batbold Myagmarjav and *Mohan Sridharan.* **Knowledge Acquisition with Selective Active Learning for Human-Robot Interaction.** In the *10th ACM/IEEE International Conference on Human-Robot Interaction (HRI)*, March 2-5, 2015, Portland, USA.

(AP.4) Keith Jones, *Mohan Sridharan* and Barbara Cherry. **Analyzing Elder Care to Guide the Design of Caregiver Robots.** In the *Social Robotics for Health Innovation Workshop* at ICSR-2014, October 27, 2014, Sydney, Australia.

(AP.3) Xiang Li, *Mohan Sridharan* and Catie Meador. **Autonomous Learning of Visual Object Models on a Robot Using Context and Appearance Cues.** In the *International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, May 6-10, 2013, Saint Paul, USA.

(AP.2) Daniel Holman, *Mohan Sridharan*, Prasanna Gowda, Dana Porter, Thomas Marek, Terry Howell and Jerry Moorhead. **Gaussian Processes-Based Predictive Models to Estimate Reference ET From Alternative Meteorological Data Sources for Irrigation Scheduling.** In the *American Society of Agronomy: ASA, CSSA and SSSA International Annual Meeting (ACS)*, October 21-24, 2012, Cincinnati, USA. *(Best Graduate Student Paper Award)*

(AP.1) Shiqi Zhang, Forrest Sheng Bao and *Mohan Sridharan.* **(Student abstract) Combining Probabilistic Planning and Logic Programming on Mobile Robots.** In the *International Conference on Artificial Intelligence (AAAI)*, July 22-26, 2012, Toronto, Canada.

- **Refereed Symposia and Workshops:**

(SW.70) Hasra Dodampegama and *Mohan Sridharan.* **Explanation and Knowledge Acquisition in Ad Hoc Teamwork**. In the International Symposium on *Practical Aspects of Declarative Languages* (PADL) at POPL, January 15-16, 2024, London, UK.

(SW.69) Mohan Sridharan. **A Cognitive Architecture for Integrated Robot Systems**. In the Workshop on *Cognitive AI* (CogAI) at IJCLR, November 13-15, 2023, Bari, Italy.

(SW.68) Pat Langley, Edward Katz and ¡*Mohan Sridharan.* **A Unified Formalism for Embodied Agents**. In the AAAI Fall Symposium on *Unifying Representations for Robot Application Development* (UR-RAD), October 25-27, 2023, Arlington, USA.

(SW.67) Hasra Dodampegama and *Mohan Sridharan.* **Collaborate and Explain on the Fly: Nonmonotonic Logical Reasoning and Incremental Learning for Ad Hoc Teamwork**. In the Workshop on *Nonmonotonic Reasoning* (NMR) at KR, September 2-4, 2023, Rhodes, Greece.

(SW.66) Hasra Dodampegama and *Mohan Sridharan.* **Toward a Hybrid Architecture for Ad hoc Teamwork**. In the Workshop on *Safe and Trustworthy AI* (STAI) at ICLP, July 9, 2023, London, UK.

(SW.65) Laura Ferrante, *Mohan Sridharan*, Dario Farina, and Claudio Zito. **Toward Adaptive Impedance Control of Upper-limb prostheses**. In the Workshop on *Compliant Robot Manipulation* at ICRA, June 2, 2023, London, UK. Also in Workshop on *Emerging Paradigms for Assistive Robotic Manipulation* and *Neuromechanics Meet Deep Learning.*

(SW.64) Hasra Dodampegama and *Mohan Sridharan.* **Coordination in Ad Hoc Teams using Knowledge-based Reasoning and Learning**. In the Workshop on *Coordination, Organizations, Institutions, Norms and Ethics for Governance of Multi-Agent Systems* (COINE) at AAMAS, May 29, 2023, London, UK.

(SW.63) Michalina Jakubczak, *Mohan Sridharan*, and Masoumeh Mansouri. **Non-monotonic Logical Reasoning and Theory of Mind for Transparency in HRI**. In the Workshop on *Adaptive Social Interaction based on user's Mental mOdels and behaVior in HRI* (ASIMOV) at ICSR, December 13, 2022, Florence, Italy.

(SW.62) Hasra Dodampegama and *Mohan Sridharan.* **Toward a Reasoning and Learning Architecture for Ad hoc Teamwork**. In the AAAI Fall Symposium Series Workshop on AI for HRI, November 17-19, 2022, Arlington, USA.

(SW.61) *Mohan Sridharan*, Chloe Benz, Arthur Findelair and Kevin Gloaguen. **There and Back Again: Combining Nonmonotonic Logical Reasoning and Deep Learning on an Assistive Robot**. In the Workshop on *Non-Monotonic Reasoning* (NMR), August 7-9, 2022, Haifa, Israel.

(SW.60) *Mohan Sridharan.* **Cognitive Adequacy: Insights from Developing Robot Architectures**. In the Workshop on *Cognitive Aspects of Knowledge Representation* (CAKR) at IJCAI, July 23, 2022, Vienna, Austria.

(SW.59) Mohan Sridharan. **Towards an Integrated Architecture for Transparent Knowledge-based Reasoning and Data-driven Learning in Robotics**. In the Workshop of the *UK Planning and Scheduling Special Interest Group* (UK PlanSIG), December 20, 2021, Online.

(SW.58) Mohan Sridharan. **Toward Explainable Reasoning and Learning in Robotics**. In the *Workshop on Explainable Logic-Based Knowledge Representation* (XLoKR) at KR, November 2021, Online.

(SW.57) Shiqi Zhang and *Mohan Sridharan*. **Knowledge-based Sequential Decision Making under Uncertainty: A Survey**. In the *Workshop on Robust and Reliable Autonomy in the Wild* (R^2AW) at IJCAI, August 19-26, 2021, Online.

(SW.56) Tiago Mota and *Mohan Sridharan*. **Non-monotonic Logical Reasoning Guiding Axiom Induction from Deep Networks for Transparent Decision Making in Robotics**. In the *Workshop on Planning and Robotics* (PlanRob) at ICAPS, August 2-6, 2021, Online.

(SW.55) Saif Sidhik, *Mohan Sridharan*, and Dirk Ruiken. **Towards a Framework for Changing-Contact Robot Manipulation**. In the *Workshop on Autonomous Robots and Multirobot Systems* (ARMS) at AAMAS, May 3-7, 2021, Online.

(SW.54) Tiago Mota and *Mohan Sridharan*. **Disambiguation Queries for Explanation Generation in Robotics**. In the Workshop of the *UK Planning and Scheduling Special Interest Group* (UK PlanSIG), December 16, 2020, Online.

(SW.53) Tiago Mota and *Mohan Sridharan*. **Axiom Learning and Belief Tracing for Transparent Decision Making in Robotics.** In the AAAI Fall Symposium on *Artificial Intelligence for Human-Robot Interaction: Trust & Explainability in Artificial Intelligence for Human-Robot Interaction*, November 13-14, 2020, Online.

(SW.52) Four papers (based on papers published at EUMAS-2020, AMAI-2020, Frontiers-2019, and JAIR-2019) accepted for presentation at the Workshop on the *Scientific Foundations of Trustworthy AI, integrating learning, optimisation and reasoning (TAILOR)* at ECAI, September 2020, Santiago de Compostela, Spain.

(SW.51) Heather Riley and *Mohan Sridharan*. **Non-monotonic Logical Reasoning to Guide Deep Learning for Explainable Visual Question Answering.** In the Workshop on *Robust AI for Neurorobotics (RAI-NR)*, August 26-28, 2019, Edinburgh, UK.

(SW.50) Tiago Mota and *Mohan Sridharan*. **Commonsense Reasoning and Knowledge Acquisition to Guide Deep Learning on Robots.** In the Workshop on *Knowledge Engineering for Planning and Scheduling (KEPS)* at ICAPS, July 11, 2019, Berkeley, USA.

(SW.49) *Mohan Sridharan*. **Refinement-Based Architecture for Knowledge Representation, Explainable Reasoning and Interactive Learning in Robotics.** In the Workshop on *Combining Learning and Reasoning: Towards Human-Level Robot Intelligence* at RSS, June 22, 2019, Freiburg, Germany.

(SW.48) Ermano Arruda, Claudio Zito, *Mohan Sridharan*, Marek Kopicki, and Jeremy Wyatt. **Generative Grasp Synthesis from Demonstration using Parametric Mixtures.** In the Workshop on *Task-Informed Grasping (TIG-II): From Perception to Physical Interaction* at RSS, June 22, 2019, Freiburg, Germany.

(SW.47) Michael Mathew, Saif Sidhik, *Mohan Sridharan*, Morteza Azad, Akinobu Hayashi, and Jeremy Wyatt. **Online Learning of Feed-Forward Models for Variable Impedance Control in Manipulation Tasks.** In the Workshop on *Task-Informed Grasping (TIG-II): From Perception to Physical Interaction* at RSS, June 22, 2019, Freiburg, Germany.

(SW.46) *Mohan Sridharan* and Ben Meadows. **Knowledge Representation and Interactive Learning of Domain Knowledge for Human-Robot Interaction.** In the *Workshop on Integrated Planning, Acting and Execution (IntEx)* at ICAPS, June 25, 2018, Delft, The Netherlands.

(SW.45) Rocio Gomez, *Mohan Sridharan* and Heather Riley. **Representing and Reasoning with Intentional Actions on a Robot.** In the *Workshop on Planning and Robotics (PlanRob)* at ICAPS, June 26, 2018, Delft, The Netherlands.

(SW.44) Tiago Mota and *Mohan Sridharan*. **Learning the Grounding of Expressions for Spatial Relations between Objects.** In the *Workshop on Perception, Inference and Learning for Joint Semantic, Geometric and Physical Understanding (MRP)* at ICRA, May 21, 2018, Brisbane, Australia.

(SW.43) Pat Langley, *Mohan Sridharan*, and Ben Meadows. **Representation, Use, and Acquisition of Affordances in Cognitive Systems.** In the *AAAI Spring Symposium on Integrating Representation, Reasoning, Learning, and Execution for Goal Directed Autonomy*, March 26-28, 2018, Stanford, USA.

(SW.42) *Mohan Sridharan*. **Integrating Knowledge Representation, Reasoning and Learning for Human-Robot Interaction.** In the *AAAI Fall Symposium on AI for Human-Robot Interaction*, November 9-11, 2017, Arlington, USA.

(SW.41) *Mohan Sridharan* and Ben Meadows. **Towards an Architecture for Discovering Domain Dynamics: Affordances, Causal Laws, and Executability Conditions.** In the *Workshop on Planning and Robotics (PlanRob)* at ICAPS, June 20, 2017, Pittsburgh, USA.

(SW.40) Lars Kunze, *Mohan Sridharan*, Christos Dimitrakakis and Jeremy Wyatt. **View Planning with Time Constraints: An Adaptive Sampling Approach.** In the *Workshop on AI Planning and Robotics: Challenges and Methods* at ICRA, May 29, 2017, Singapore.

(SW.39) *Mohan Sridharan*. *KR^3L*: **An Architecture for Knowledge Representation, Reasoning and Learning in Human-Robot Collaboration**. In the *Workshop on Knowledge, Data, and Systems for Cognitive Computing (CogComp)* at IJCAI, July 11, 2016, New York City, USA.

(SW.38) *Mohan Sridharan* and Michael Gelfond. **Representing and Reasoning with Logical and Probabilistic Knowledge on Robots**. In the *Workshop on Statistical Relational Learning (StaRAI)* at IJCAI, July 11, 2016, New York City, USA.

(SW.37) *Mohan Sridharan* and Michael Gelfond. **Using Knowledge Representation and Reasoning Tools in the Design of Robots**. In the *Workshop on Knowledge-based Techniques for Problem Solving and Reasoning (KnowProS)* at IJCAI, July 10, 2016, New York City, USA.

(SW.36) *Mohan Sridharan*, Prashanth Devarakonda and Rashmica Gupta. **Incremental Discovery of Domain Axioms Using Relational Reinforcement Learning and Declarative Programming.** In the *Workshop on Planning and Robotics (PlanRob)* at ICAPS, June 13-14, 2016, London, UK. *(Undergraduate student research)*

(SW.35) *Mohan Sridharan*, Prashanth Devarakonda and Rashmica Gupta. **Can I Do That? Discovering Domain Axioms Using Declarative Programming and Relational Reinforcement Learning.** In the *Workshop on Autonomous Robots and Multirobot Systems (ARMS)* at AAMAS, May 9, 2016, Singapore. *(Most Visionary Paper Award, Undergraduate student research)*

(SW.34) *Mohan Sridharan*. **Towards An Architecture for Knowledge Representation, Reasoning and Learning in Human-Robot Collaboration.** In the *AAAI Spring Symposium on Enabling Computing Research in Socially Intelligent Human-Robot Interaction*, March 21-23, 2016, Stanford, USA.

(SW.33) *Mohan Sridharan*, Michael Gelfond, Shiqi Zhang and Jeremy Wyatt. **Mixing Non-Monotonic Logical Reasoning with Decision-Theoretic Planning for Robots.** In the *Workshop on Hybrid Reasoning* at IJCAI, July 26, 2015, Buenos Aires, Argentina.

(SW.32) Batbold Myagmarjav and *Mohan Sridharan*. **Incremental Knowledge Acquisition for Human-Robot Collaboration.** In the *Workshop on Autonomous Robots and Multirobot Systems (ARMS)* at AAMAS, May 4, 2015, Istanbul, Turkey.

(SW.31) Shiqi Zhang, *Mohan Sridharan*, Michael Gelfond and Jeremy Wyatt. **KR^3: A Knowledge Representation and Reasoning Architecture for Robots.** In the *Workshop on Non-Monotonic Reasoning (NMR)*, July 17-19, 2014, Vienna, Austria.

(SW.30) Emilie Featherston, *Mohan Sridharan*, Susan Urban and Joseph Urban. **DOROTHY: Enhancing Bidirectional Communication between a 3D Programming Interface and Mobile Robots.** In the *Symposium on Educational Advances in Artificial Intelligence (EAAI)*, July 28-29, 2014, Quebec City, Canada. *(Undergraduate student research)*

(SW.29) Shiqi Zhang, *Mohan Sridharan*, Michael Gelfond and Jeremy Wyatt. **Integrating Probabilistic Graphical Models and Declarative Programming for Knowledge Representation and Reasoning in Robotics.** In the *Workshop on Planning and Robotics* at ICAPS, June 22-23, 2014, Portsmouth, USA.

(SW.28) Shiqi Zhang and *Mohan Sridharan*. **Integrating Declarative Programming and Probabilistic Planning on Robots.** In the AAAI Fall Symposium on *How Should Intelligence be Abstracted in AI Research: MDPs, Symbolic Representations, Artificial Neural Networks, or ____?*, November 15-17, 2013, Arlington, USA.

(SW.27) Shiqi Zhang and *Mohan Sridharan*. **Combining Answer Set Programming and POMDPs for Knowledge Representation and Reasoning in Robotics.** In the *Workshop on Knowledge Representation and Reasoning in Robotics* at ICLP, August 25, 2013, Istanbul, Turkey.

(SW.26) David South, Mary Shuman, Kevin Thomas, Austin Ray, Stephanie Graham, Shiloh Huff, Sabyne Peeler, Sarah Rainge, *Mohan Sridharan*, Susan Urban and Joseph Urban. **DOROTHY: Integrating Graphical Programming with Robotics to Stimulate Interest in Computing Careers.** In the *Alice Symposium*, June 19, 2013, Durham, USA. *(Undergraduate student research)*

(SW.25) Xiang Li, *Mohan Sridharan* and Catie Meador. **Learning Object Models on a Robot using Visual Context and Appearance Cues.** In the *Workshop on Autonomous Robots and Multirobot Systems (ARMS)* at AAMAS, May 7, 2013, Saint Paul, USA.

(SW.24) Mohan Sridharan. **Integrating Visual Learning and Hierarchical Planning for Autonomy in Human-Robot Collaboration.** In the AAAI Spring Symposium on *Designing Intelligent Robots: Reintegrating AI II*, March 25-27, 2013, Stanford, USA.

(SW.23) Ranjini Swaminathan, *Mohan Sridharan* and Katharine Hayhoe. **Convolutional Neural Networks for Climate Downscaling.** In the *Climate Informatics Workshop (CI)*, September 20-21, 2012, Boulder, USA.

(SW.22) Xiang Li and *Mohan Sridharan*. **Vision-based Autonomous Learning of Object Models on a Mobile Robot.** In the *Workshop on Autonomous Robots and Multirobot Systems (ARMS)* at AAMAS, June 5, 2012, Valencia, Spain.

(SW.21) Shiqi Zhang, Forrest Sheng Bao and *Mohan Sridharan*. **ASP-POMDP: Integrating Nonmonotonic Logical Reasoning and Probabilistic Planning on Mobile Robots.** In the *Workshop on Autonomous Robots and Multirobot Systems (ARMS)* at AAMAS, June 5, 2012, Valencia, Spain.

(SW.20) Ranjini Swaminathan and *Mohan Sridharan*. **Towards Robust Human-Robot Interaction using Multimodal Cues.** In the *Workshop on Human-Agent-Robot Teamwork (HART)* at HRI, March 5, 2012, Boston, USA.

(SW.19) Kristof Richmond, Alessandro Febretti, Shilpa Gulati, Christopher Flesher, Bartholomew Hogan, Aniket Murarka, Gregory Kuhlmann, *Mohan Sridharan*, Andrew Johnson, William Stone, John Priscu and Peter Doran. **Sub-ice Exploration of an Antarctic Lake: Results from the ENDURANCE Project.** In the *International Symposium on Unmanned Untethered Submersible Technology (UUST)*, August 21-24, 2011, Portsmouth, USA.

(SW.18) Shiqi Zhang and Mohan Sridharan. **Visual Search and Multirobot Collaboration on Mobile Robots.** In the *Workshop on Automated Action Planning for Autonomous Mobile Robots (PAMR)* at AAAI, August 7-8, 2011, San Francisco, USA.

(SW.17) Kshira Nadarajan and Mohan Sridharan. **Online Detection of Instability for Robust Teamwork in Humanoid Soccer Robots.** In the *Workshop on Humanoid Soccer Robots (HSR)* at Humanoids, December 7, 2010, Nashville, USA.

(SW.16) Akbar Siami Namin and Mohan Sridharan. **Position Paper: Bayesian Reasoning for Software Testing.** In the *Workshop on the Future of Software Engineering Research* at FSE, November 7-8, 2010, Santa Fe, USA.

(SW.15) Mohan Sridharan and Akbar Siami Namin. **Prioritizing Mutation Operators based on Importance Sampling.** In the *International Symposium on Software Reliability Engineering (ISSRE)*, November 1-4, 2010, San Jose, USA.

(SW.14) Akbar Siami Namin, Barbara Millet and *Mohan Sridharan.* **Fast Abstract: Stochastic Model-based Testing for Human-Robot Interaction.** In the *International Symposium on Software Reliability Engineering (ISSRE)*, November 2, 2010, San Hose, USA.

(SW.13) Shiqi Zhang and Mohan Sridharan. **Vision-based Scene Analysis on a Mobile Robot using Layered POMDPs.** In the *POMDP Practitioners Workshop* at ICAPS, May 12, 2010, Toronto, Canada.

(SW.12) Xiang Li, Shiqi Zhang and *Mohan Sridharan.* **Vision-based Safe Local Motion on a Humanoid Robot.** In the *Workshop on Humanoid Soccer Robots (HSR)* at Humanoids, December 7, 2009, Paris, France.

(SW.11) Mohan Sridharan and Xiang Li. **Autonomous Information Fusion for Robust Obstacle Localization on a Humanoid Robot.** In the *Latin American Robotics Symposium (LARS)*, October 29-30, 2009, Valparaiso, Chile.

(SW.10) Mohan Sridharan, Jeremy Wyatt and Richard Dearden. **POMDP-based Planning for Visual Processing Management on a Mobile Robot.** In the *Workshop on Cognitive Vision* at IROS, October 11, 2009, St. Louis, USA.

(SW.9) Aniket Murarka, Gregory Kuhlmann, Shilpa Gulati, *Mohan Sridharan*, Chris Flesher and William Stone. **Vision-based Frozen Surface Egress: A Docking Algorithm for the ENDURANCE AUV.** In the *International Symposium on Unmanned Untethered Submersible Technology (UUST)*, August 23-26, 2009, Durham, USA.

(SW.8) William Stone, Bart Hogan, Chris Flesher, Shilpa Gulati, Kristof Richmond, Aniket Murarka, Gregory Kuhlmann and *Mohan Sridharan.* **Sub-ice Exploration of West Lake Bonney: ENDURANCE 2008 Mission.** In the *International Symposium on Unmanned Untethered Submersible Technology (UUST)*, August 23-26, 2009, Durham, USA.

(SW.7) Mohan Sridharan, Richard Dearden and Jeremy Wyatt. **E-HiPPo: Extensions to Hierarchical POMDP-based Visual Planning on a Robot.** In the *PlanSIG Workshop*, December 11-12, 2008, Edinburgh, UK.

(SW.6) Mohan Sridharan and Peter Stone. **Comparing Two Action Planning Approaches for Color Learning on a Mobile Robot.** In the *Workshop on Robotic Perception (RoboPerc)* at VISAPP, January 22, 2008, Funchal, Portugal.

(SW.5) Mohan Sridharan and Peter Stone. **Autonomous Planned Color Learning on a Mobile Robot Without Labeled Data.** In the *Workshop on Cognitive Robotics* at AAAI, July 15-16, 2006, Boston, USA.

(SW.4) Mohan Sridharan and Peter Stone. **Robust Autonomous Structure-based Color Learning on a Mobile Robot.** In the *AAAI/SIGART Doctoral Consortium* at AAAI, July 15-16, 2006, Boston, USA.

(SW.3) Mohan Sridharan and Peter Stone. **Autonomous Planned Color Learning on a Legged Robot.** In Gerhard Lakemeyer, Elizabeth Sklar, Domenico Sorenti and Tomoichi Takahashi, editors, *RoboCup 2006: Robot Soccer World Cup X*, Springer Verlag, Berlin, 2007.

(SW.2) Mohan Sridharan and Peter Stone. **Towards Eliminating Manual Color Calibration at RoboCup.** In Itsuki Noda, Adam Jacoff, Ansgar Bredenfeld and Yasutake Takahashi, editors, *RoboCup 2005: Robot Soccer World Cup IX*, Springer Verlag, Berlin, 2006.

(SW.1) Mohan Sridharan and Peter Stone. **Towards Illumination Invariance in the Legged League.** In Daniele Nardi, Martin Riedmiller, and Claude Sammut, editors, *RoboCup-2004: Robot Soccer World Cup VIII*, Springer Verlag, Berlin, 2005.

- **Peer-reviewed Workshop and Tutorial Proposals (Accepted):**

(WT.9) Mohan Sridharan. **Integrated Knowledge-based and Data-driven Reasoning, Control, and Learning in Robotics: Robustness, Rationality and Explainable Agency.** In the *European Summer School on Artificial Intelligence*, July 15-26, 2024, Athens, Greece.

(WT.8) Nicola Basilico and Mohan Sridharan. **Autonomous Robots and Multirobot Systems**. In the *International Conference on Autonomous Agents and Multiagent Systems, AAMAS*, May 6-10, 2024, Auckland, NZ.

(WT.7) Nicola Basilico and Mohan Sridharan. **Autonomous Robots and Multirobot Systems**. In the *International Conference on Autonomous Agents and Multiagent Systems, AAMAS*, May 29-30, 2023, London, UK.

(WT.6) Mohan Sridharan. **Explainability in Integrated Cognitive Systems Combining Logic-based Reasoning and Data-driven Learning.** In the *European Summer School in Logic, Language and Information*, August 8-12, 2022, Galway, Ireland.

(WT.5) Shiqi Zhang and Mohan Sridharan. **Knowledge-based Sequential Decision-Making under Uncertainty.** In the *AAAI Conference on AI*, January 28, 2019, Honolulu, USA.

(WT.4) Shiqi Zhang, Matteo Leonetti, Mohan Sridharan, Jeremy Wyatt. **Integrated Representation, Reasoning, and Learning for Extended Autonomy in Robotic Systems.** In the *AAAI Spring Symposium Series*, March 26-28, 2018, Stanford, USA.

(WT.3) Mohan Sridharan, Fangkai Yang, Subramanian Ramamoorthy, Volkan Patoglu, and Esra Erdem. **Knowledge Representation and Reasoning in Robotics.** In the *AAAI Spring Symposium Series*, March 24-26, 2014, Stanford, USA.

(WT.2) Mohan Sridharan and Fangkai Yang. **Knowledge Representation and Reasoning in Robotics.** In the *International Conference on Logic Programming (ICLP)*, August 25, 2013, Istanbul, Turkey.

(WT.1) Mohan Sridharan and Akbar Siami Namin. **Bayesian Methods for Data Analysis in Software Engineering.** In the *International Conference on Software Engineering (ICSE)*, May 3, 2010, Cape Town, South Africa.

- **Theses and Dissertations Supervised/Co-supervised:**

(DT.18) Mark Robson. **Towards An Holistic Approach for Highly Flexible Robotic Assembly Systems**, MPhil Thesis, School of Computer Science, University of Birmingham, UK, May 2024.

(DT.17) Laura Ferrante. **Towards Adaptive Impedance Control for Upper-limb Prostheses**, Doctoral Dissertation, School of Computer Science, University of Birmingham, UK, December 2023.

(DT.16) Saif Sidhik. **An Online Framework for Changing-Contact Robot Manipulation**, Doctoral Dissertation, School of Computer Science, University of Birmingham, UK, July 2022.

(DT.15) Tiago Mota. **Combining Non-monotonic Logical Reasoning with Data-driven Learning for Scene Understanding and Transparent Decision Making**, Doctoral Dissertation, Department of Electrical, Computer, and Software Engineering, The University of Auckland, NZ, December 2021.

(DT.14) Michael Mathew. **Learning Forward-Models for Robot Manipulation**, Doctoral Dissertation, School of Computer Science, University of Birmingham, UK, May 2020. *Co-supervised with Dr. Jeremy Wyatt*

(DT.13) Ermano Arruda. **Generative and Predictive Models for Robust Manipulation**, Doctoral Dissertation, School of Computer Science, University of Birmingham, UK, May 2020. *Co-supervised with Dr. Jeremy Wyatt*

(DT.12) Ian Temple. **An Exploration of the Use of Auxiliary Tasks for Transfer Learning Using SAC-X**, MRes Thesis, Natural Computation, School of Computer Science, University of Birmingham, UK, May 2020.

(DT.11) Maija Filipovica. **Representing and Reasoning With Complex Affordances**, Masters Thesis, Computational Neuroscience and Cognitive Robotics Program, University of Birmingham, UK, August 2019.

(DT.10) Heather Riley. **The Advantages of Non-monotonic Logic in Modular Architectures: High Performance and Interpretable Outputs with Limited Training Data**, Masters Thesis, Department of Electrical and Computer Engineering, The University of Auckland, NZ, February 2019.

(DT.9) Han Xu. **Integrating Logical Reasoning and Probabilistic Graphical Models for Spoken Dialog System**, Masters Thesis, Department of Computer Science, Texas Tech University, USA, May 2017.

(DT.8) Sarah Rainge. **Integrating Reinforcement Learning and Declarative Programming to Learn Causal Laws in Dynamic Domains**, Masters Thesis, Department of Computer Science, Texas Tech University, USA, August 2014.

(DT.7) Samujjwal Bhandari. **A Language and Architecture for Adaptive Event Pattern Detection**, Doctoral Dissertation, Department of Computer Science, Texas Tech University, USA, December 2013. *Co-supervised with Dr. Susan Urban (IE).*

(DT.6) Xiang Li. **Autonomous Learning of Object Models on Mobile Robots using Visual Cues**, Doctoral Dissertation, Department of Computer Science, Texas Tech University, USA, August 2013.

(DT.5) Kimia Salmani. **Multi-Instance Active Learning with Online Labeling**, Masters Thesis, Department of Computer Science, Texas Tech University, USA, August 2013.

(DT.4) Shiqi Zhang. **Integrating Answer Set Programming and POMDPs for Knowledge Representation and Reasoning in Robotics**, Doctoral Dissertation, Department of Computer Science, Texas Tech University, USA, August 2013.

(DT.3) Justin Griggs. **Intelligent Data Acquisition and Processing for Unmanned Aerial Vehicles**, Masters Thesis, Department of Electrical and Computer Engineering, Texas Tech University, August 2012. *Co-supervised with Dr. Richard Gale (EE).*

(DT.2) Aaron Lee. **Online Environment Anticipation using Multivariate Legendre Series**, Masters Thesis, Department of Electrical and Computer Engineering, Texas Tech University, USA, December 2011. *Co-supervised with Dr. Richard Gale (EE).*

(DT.1) Mamatha Aerolla. **Incorporating Human and Environmental Feedback for Robust Performance in Agent Domains**, Masters Thesis, Department of Computer Science, Texas Tech University, USA, May 2011.

- **Unrefereed Articles:**

(TR.25) Laura Ferrante, *Mohan Sridharan*, Claudio Zito and Dario Farina. **Toward a Framework for Adaptive Impedance Control of an Upper-limb Prosthesis**, Technical Report on arXiv: `https://arxiv.org/abs/2209.04937`, December 2022.

(TR.24) Hasra Dodampegama and *Mohan Sridharan*. **Toward a Reasoning and Learning Architecture for Ad hoc Teamwork**, Technical Report on arXiv: `https://arxiv.org/abs/2208.11556`, August 2022.

(TR.23) Martin Rudorfer, Markus Suchi, *Mohan Sridharan*, Markus Vincze, Ales Leonardis. **BURG-Toolkit: Robot Grasping Experiments in Simulation and the Real World**, Technical report on arXiv: `https://arxiv.org/abs/2205.14099`, May 2022.

(TR.22) Mark Robson and *Mohan Sridharan*. **Generating Task-specific Robotic Grasps**, Technical report on arXiv: `https://arxiv.org/abs/2203.10498`, March 2022.

(TR.21) Reuth Mirsky, Ignacio Carlucho, Arrasy Rahman, Elliot Fosong, William Macke, *Mohan Sridharan*, Peter Stone, and Stefano V. Albrecht. **A Survey of Ad Hoc Teamwork: Definitions, Methods, and Open Problems**, Technical report on arXiv: `https://arxiv.org/abs/2202.10450`, February 2022.

(TR.20) *Mohan Sridharan* and Tiago Mota. **Combining Commonsense Reasoning and Knowledge Acquisition to Guide Deep Learning in Robotics**, Technical report on arXiv: `https://arxiv.org/abs/2201` January 2022.

(TR.19) Saif Sidhik, *Mohan Sridharan*, and Dirk Ruiken. **An Adaptive Framework for Reliable Trajectory Following in Changing-Contact Robot Manipulation Tasks**, Technical report on arXiv: `https://arxiv.org/abs/2111.07753`, November 2021.

(TR.18) Angel Daruna, Mehul Gupta, *Mohan Sridharan*, and Sonia Chernova. **Continual Learning of Knowledge Graph Embeddings**. Technical report on arXiv: `https://arxiv.org/abs/2101.05850`, May 2021. (extended version of paper that appeared in RA-L 2021 and ICRA 2021)

(TR.17) Shiqi Zhang and *Mohan Sridharan*. **A Survey of Knowledge-based Sequential Decision Making under Uncertainty**, Technical report on arXiv: `https://arxiv.org/abs/2008.08548`, September 2020.

(TR.16) Heather Riley and *Mohan Sridharan*. **Non-monotonic Logical Reasoning Guiding Deep Learning for Explainable Visual Question Answering**, Technical report on arXiv: `https://arxiv.org/abs/` September 2019.

(TR.15) Rocio Gomez, *Mohan Sridharan* and Heather Riley. **Towards a Theory of Intentions for Human-Robot Collaboration**, Technical report on arXiv: `https://arxiv.org/abs/1907.13275`, July 2019.

(TR.14) *Mohan Sridharan*, Michael Gelfond, Shiqi Zhang and Jeremy Wyatt. **A Refinement-Based Architecture for Knowledge Representation and Reasoning in Robotics**, Technical report on arXiv: `http://arxiv.org/abs/1508.03891`, August 2015, revised October 2016, April 2017, September 2018.

(TR.13) Ranjini Swaminathan, *Mohan Sridharan* and Katharine Hayhoe. **A Computational Framework for Modelling and Analyzing Ice Storms**, Technical report on arXiv: `https://arxiv.org/abs/1805.04` May 2018.

(TR.12) Zenon Colaco and *Mohan Sridharan*. **Mixed Logical and Probabilistic Reasoning for Planning and Explanation Generation in Robotics**, Technical report on arXiv: `http://arxiv.org/abs/1508.000` August 2015. *(Undergraduate student research)*

(TR.11) Shiqi Zhang, *Mohan Sridharan*, Michael Gelfond and Jeremy Wyatt. **A Knowledge Representation and Reasoning Architecture for Robots**, Technical Report, Department of Computer Science, Texas Tech University, February 2014.

(TR.10) Ranjini Swaminathan and Mohan Sridharan. **Towards Natural Human-Robot Interaction using Multimodal Cues**, Technical Report, Department of Computer Science, Texas Tech University, December 2011.

(TR.9) Mohan Sridharan and Mamatha Aerolla. **Bootstrap Learning and Augmented Reinforcement Learning for Robust Performance in Agent Domains**, Technical report, Department of Computer Science, Texas Tech University, May 2011.

(TR.8) Susan Urban, Joseph Urban, *Mohan Sridharan* and Susan Mengel. **Computational Thinking for Middle School Students through the Integration of Graphical Programming and Robotics**, Technical report, Department of Computer Science, Texas Tech University, May 2011.

(TR.7) Mohan Sridharan and Akbar Siami Namin. **A Probabilistic Sampling Model for Effective Mutation Testing**, Technical report, Department of Computer Science, Texas Tech University, May 2010.

(TR.6) Todd Hester, Michael Quinlan, Peter Stone and *Mohan Sridharan*. **TT-UT Austin Villa 2009: Naos across Texas**, Technical Report: UT-AI-TR-09-08, The University of Texas at Austin, Department of Computer Science, AI Laboratory, 2009.

(TR.5) Mohan Sridharan, Nick Hawes, Jeremy Wyatt, Richard Dearden and Aaron Sloman. **Planning Information Processing and Sensing Actions**, Technical report: CoSy-07-06, CSR-07-09, University of Birmingham (UK), November 2007.

(TR.4) Peter Stone, Peggy Fidelman, Nate Kohl, Gregory Kuhlmann, Tekin Mericli, *Mohan Sridharan* and Shao-en Yu. **The UT Austin Villa 2006 RoboCup Four-Legged Team**, Technical Report: UT-AI-TR-06-337. The University of Texas at Austin, Department of Computer Science, AI Laboratory, December 2006.

(TR.3) Peter Stone, Kurt Dresner, Peggy Fidelman, Nate Kohl, Gregory Kuhlmann, *Mohan Sridharan* and Daniel Stronger. **The UT Austin Villa 2005 RoboCup Four-Legged Team**, Technical Report: UT-AI-TR-05-325. The University of Texas at Austin, Department of Computer Science, AI Laboratory, November 2005.

(TR.2) Peter Stone, Kurt Dresner, Peggy Fidelman, Nicholas Jong, Nate Kohl, Gregory Kuhlmann, *Mohan Sridharan* and Daniel Stronger. **The UT Austin Villa 2004 RoboCup Four-Legged Team: Coming of Age**, Technical Report: UT-AI-TR-04-313. The University of Texas at Austin, Department of Computer Science, AI Laboratory, October 2004.

(TR.1) Peter Stone, Kurt Dresner, Selim Erdogan, Peggy Fidelman, Nicholas Jong, Nate Kohl, Gregory Kuhlmann, Ellie Lin, *Mohan Sridharan*, Daniel Stronger and Gurushyam Hariharan. **UT Austin Villa 2003: A New RoboCup Four-Legged Team**, Technical Report: UT-AI-TR-03-304. The University of Texas at Austin, Department of Computer Science, AI Laboratory, 2003.

RESEARCH GRANTS

1. **US Office of Naval Research (ONR):** *Unifying Symbolic Reasoning and Continuous Space Control in Robotics*, May 2023—April 2026. **Mohan Sridharan** (**PI, University of Birmingham, UK**) and Pat Langley (Co-PI, ISLE, USA). Award amount: US $540,000.

2. **EU H2020 Doctoral Network, HORIZON-TMA-MSCA-DN:** *Exploring the Deep Universe by Computational Analysis of Data from Observations (EDUCADO)*, September 2023—August 2027. Johan Knapen (Coordinator, Instituto de Astrofisica de Canarias, Spain), with partners from Belgium, The Netherlands, Italy, Germany, France, and the UK (Peter Tino, PI; **Mohan Sridharan, Co-I**; Ales Leonardis, Co-I). Award amount: €2,662,797.

3. **Honda Research Institute-EU Grant:** *Transferring Knowledge of Changing Contact Manipulation to Task Planning*, January 2022—August 2025. **Mohan Sridharan** (**PI**). Award amount: €246,750.

4. **US Office of Naval Research (ONR):** *Explainable Reasoning and Learning for Ad hoc Multiagent Teamwork*, June 2020—August 2024. **Mohan Sridharan** (**PI, University of Birmingham, UK**), Stefano Albrecht (Co-PI, University of Edinburgh, UK), and Peter Stone (Co-PI, The University of Texas at Austin, USA). Award amount: US $905,000.

5. **EPSRC Capital Award Core Equipment Proposal**. November 2020—May 2022. Constantinos Constantinou (PI), Christopher Windows-Yule (Co-I), Giovanni Barontini (Co-I), Miguel Navarro-Cia (Co-I), **Mohan Sridharan** (**Co-I**), Thomas Montenegro-Johnson (Co-I), Timothy Barendt (Co-I), Vincent Boyer (Co-I). Award amount: £950,000.

6. **EU H2020 Future and Emerging Technologies, CHIST-ERA:** *Benchmarks for UndeRstanding Grasping (BURG)*, November 2019—April 2023. Markus Vincze (Coordinator, TU Wien), Timothy Patten (Co-I, TU Wien); Ales Leonardis (PI, UoB), **Mohan Sridharan** (**Co-I, UoB**); Tatiana Tommasi (PI, IIT), Barbara Caputo (Co-I, IIT); Guillem Alenya (PI, CSIC), Carme Torras (Co-I, CSIC), Julia Borras (Co-I, CSIC). Award amount: €1,200,000.

7. **Honda Research Institute-EU Grant:** *Transferring Knowledge of Changing Contact Manipulation Operations to New Object Properties*, July 2017—December 2021. **Mohan Sridharan** (**PI, UoB**). Award amount: €350,000. *I took over from Dr. Jeremy Wyatt in the first year.*

8. **Royal Society Partnership Grant:** *How can human beings investigate what life is like in space?*, 2020-2021. Jon Clinton (PI, St Mary's Catholic Primary School), **Mohan Sridharan** (**STEM partner, UoB**). Award amount: £3000.

9. **EPSRC Core Equipment Grant**. November 2018—May 2019. Tim Softley (PI) and others. *I worked with Dr. Jeremy Wyatt to write sections of this proposal related to equipment for the Intelligent Robotics Lab.* IRLab share: £138,000.

10. **US Office of Naval Research (ONR):** *Scalable Inference of Affordance, Activity, and Intent from Spatio-Temporal Input*, June 2017—May 2021. **Mohan Sridharan** (**PI, The University of Auckland, NZ**) and Pat Langley (Co-PI, Institute for the Study of Learning and Expertise, USA). Award amount: US $518,583.

11. **The University of Auckland Foundation/Seelye Fellowship:** *Frontiers and Challenges in Autonomous Robots*, January 2017—December 2017. **Mohan Sridharan**. Award amount: NZ $14,000.

12. **The University of Auckland, Faculty of Engineering Seed Fund:** *Self-Organizing Behavior: What Software Teams and Autonomous Robot Teams can Learn from each other*, January 2017—December 2017. Rashina Hoda (PI) and **Mohan Sridharan** (**Co-PI**). Award amount: NZ $10,000.

13. **Air Force Office of Scientific Research (AFOSR)/Asian Office of Aerospace R&D (AOARD):** *Towards Early Inference of Human Intent and Affordances for Human-Robot Collaboration*, August 17, 2016—August 16, 2019. **Mohan Sridharan** (**PI, The University of Auckland, NZ**) and Keith Jones (Co-PI, Texas Tech University). Award amount: US $253,000.

14. **The University of Auckland (UoA), Distinguished Visitor Award:** *Stochastic Estimation and Smart Sensor Technology for Agricultural Applications*, February 2016—February 2017. Mohan Sridharan. Award amount: NZ $9000.

15. **US Office of Naval Research (ONR):** *Knowledge Representation and Reasoning for Collaboration in Ad hoc Human-Robot Teams*, July 31, 2013—August 29, 2017. **Mohan Sridharan** (**PI, Texas Tech University/The University of Auckland**) and Peter Stone (Co-PI, The University of Texas at Austin). Award amount: US $977,465.

16. **US National Science Foundation (NSF):** *EAGER: CHS: Collaborative: Analyzing Elder Care to Guide the Design of Caregiver Robots*, September 1, 2014—August 31, 2017. Keith Jones (PI, Texas Tech University), **Mohan Sridharan** (**Co-PI, The University of Auckland, NZ**) and Barbara Cherry (Co-PI, Texas Tech Health Science Center). Award amount: US $189,168.

17. **The University of Auckland (UoA) International Central Networks Fund:** March 2015—March 2016. Mohan Sridharan. Award amount: NZ $4500.

18. **US National Science Foundation (NSF):** *Research Experiences for Undergraduates (REU) in Cybersecurity, Robotics and Software Engineering*, May 1, 2013—April 30, 2016. Susan Urban (PI), Joseph Urban (Co-PI), **Mohan Sridharan** (**Co-PI**) and Eonsuk Shin (Co-PI), Texas Tech University, USA. Award amount: US $357,337.

19. **Texas Tech University (TTU):** *Service Learning Faculty Fellow*, Fall 2012—Spring 2013. Mohan Sridharan. Award amount: US $1500.

20. **US National Science Foundation (NSF):** *Research Experiences for Undergraduates in Software Engineering and Service Composition*, May 1, 2010—April 30, 2013. Susan Urban (PI), Eonsuk Shin (Co-PI) and **Mohan Sridharan** (**Co-PI**), Texas Tech University, USA. Award amount: US $356,583.

21. **US Office of Naval Research (ONR) Science of Autonomy Award**: *Active Learning for Sequential Sensing and Efficient Human Interaction in Collaborative Human-Robot Teams*, March 16, 2009—December 31, 2012. Peter Stone (PI, The University of Texas at Austin), Ian Fasel (Co-PI, The University of Arizona) and **Mohan Sridharan** (**Co-PI, Texas Tech University**). Award amount: US $1,200,000.

22. **Texas Tech University (TTU):** *Growing Graduate Programs Funding*, September 1, 2011—August 31, 2012. Mohan Sridharan. Award amount: US $26,000.

23. **Texas Tech University (TTU): Institute of Inclusive Excellence Faculty Fellow**, Fall 2011—Spring 2012. Mohan Sridharan. Award amount: US $1000.

24. **Institute of Personal Robots in Education (IPRE) Equipment Funds**, May 2008. Mohan Sridharan. Award amount: US $1000. Funds supported the purchase of IPRE fluke robots that are used in educational initiatives and outreach activities.

RESEARCH AWARDS

1. **Best Poster Award** at the Workshop on *Emerging paradigms for robotic manipulation: from the lab to the productive world* at the Robotics Science and Systems Conference, 2019.

2. **Finalist for Best Paper Award** at Robotics Science and Systems Conference, 2019.

3. **Visionary Paper Award** at the Autonomous Robots and Multiagent Systems (ARMS) workshop at International Conference on Autonomous Agents and Multiagent Systems (AAMAS) 2016.

4. **Best Paper Award** at the 27th International Conference of the Florida Artificial Intelligence Research Society (FLAIRS 2014).

5. **Paper of Excellence Award** at the International Conference on Development and Learning and Epigenetic Robotics (ICDL-EpiRob 2012).

6. **Best Reviewer Award** at the Symposium on Image and Video Technology (2009).

7. **Distinguished Paper Award** at the International Conference on Automated Planning and Scheduling (ICAPS 2008), a premier planning conference.

8. **Robot Soccer Competitions:** First position in the Standard Platform League (SPL) of the US-Open Robot Soccer Competitions in 2010 and 2009. Third (fourth) position in the SPL of the International Robot Soccer competitions, i.e., RoboCup, in 2010 (2009). Quarter-finalists in the SPL (international) in 2011, 2007, 2005, 2004.

9. First position in the *Open Research Challenge* at RoboCup in 2007.

TEACHING & STUDENT SUPERVISION

- **Teaching Schedule (University of Edinburgh, UK):**
  - **Semester 1 (2024):** *Introduction to Mobile Robotics*; undergraduate (third-year) module.
- **Teaching Schedule (University of Birmingham, UK):**
  - **Semester 1 (2018-2023):** *Intelligent Robotics*; undergraduate (third-year/fourth-year)/MSc module.
  - **Semester 2 (2020-2023):** *Advanced Robotics*; MSc/undergraduate (fourth-year) module.
- **Teaching Schedule (The University of Auckland, NZ):**
  - **Semester 2:**

    - **Computer Networks and Distributed Applications** (CompSys 725, 2014-2017): part IV elective. I discussed probabilistic decision-making for robot/agent teams.
    - **Microcomputers and Embedded Systems** (CompSys 303, 2014-2016): introductory (part-3) course. I discussed applications and control of embedded systems.
    - **Object-oriented Design and Programming** (CompSys 202, 2015): introductory (part-2) course. I discussed object-oriented programming concepts in C++.
  - **Semester 1:**
    - **Computer Networks** (SoftEng 364, 2015-2017): introductory (part-3) course. I discussed computer/network security concepts.
    - **Robotics and Intelligent Systems** (CompSys 726, 2017): introductory (part-3) course. I discussed probabilistic state estimation for robot perception, localization, and mapping.
    - **Foundations of Bayesian Machine Learning** (SoftEng 753, 2017): designed introductory (part-3) course. I discussed Bayesian machine learning concepts.

- **Teaching Schedule (Texas Tech University, USA):**
  - **AI Robotics** *(CS 5391/CS4331/EE5332/EE4332; Spring 2014, Spring 2010, Fall 2008)*: I taught an introductory course on probabilistic robotics.
  - **Programming Principles II** *(CS 1412; Fall 2013, Spring 2013, Fall 2012, Spring 2012)*: I taught an undergraduate course on programming in C/C++.
  - **Computer Graphics** *(CS 4395; Spring 2012, Fall 2010)*: I taught an undergraduate (elective) course on computer graphics.
  - **Intelligent Systems** *(CS 5368; Fall 2011, Fall 2010)*: I taught an introductory (graduate) course that provided a probabilistic view of AI.
  - **Human Computer Interaction** *(CS 3366; Fall 2011)*: I taught an undergraduate (elective) course on Human-Computer Interaction.
  - **Special Topics: ML for Robotics and Vision; Machine Learning; Autonomous Mobile Robots** *(CS 5331; Spring 2011, Fall 2009, Spring 2009)*: I designed and taught research seminars on probabilistic machine learning and state estimation in computer vision and robotics.

- **Postdoctoral Research Fellows:**

  1. **Dr. Martin Rudorfer**. School of Computer Science, University of Birmingham, UK. September 2020—2022. <u>Current status:</u> **Lecturer of Computer Science, Aston University, UK**.
  2. **Dr. Rocio Gomez**. Department of Electrical and Computer Engineering, The University of Auckland, NZ. November 2016—August 2019. <u>Current status:</u> **Data scientist**.
  3. **Dr. Shiqi Zhang**. Department of Computer Science, Texas Tech University, USA. August 2013—February 2014. <u>Current status:</u> **Assistant Professor of Computer Science, SUNY Binghamton, USA**.

- **PhD Students:**

  1. **Tianyi Fu (PhD candidate)**. School of Informatics, University of Edinburgh, UK. January 2024—present.
  2. **Yanrong Wang (PhD candidate)**. School of Informatics, University of Edinburgh, UK. February 2023—present.
  3. **Hasra Dodampegama (PhD candidate)**. School of Informatics, University of Edinburgh, UK. July 2021—present.
  4. **Michalina Jakubczak (PhD candidate)**. School of Computer Science, University of Birmingham, UK. October 2019—present.
  5. **Oliver Kim (PhD candidate)**. School of Computer Science, University of Birmingham, UK. August 2018—present.

6. **Laura Ferrante (PhD)**. School of Computer Science, University of Birmingham, UK. Graduated December 2023. Current status: **Postdoctoral Research Fellow at Imperial College London, UK**.
7. **Saif Sidhik (PhD)**. School of Computer Science, University of Birmingham, UK. Graduated July 2022. Current status: **Senior Robotics Research Engineer at Dyson**.
8. **Tiago Andrade Mota (PhD)**. Department of Electrical, Computer, and Software Engineering, The University of Auckland, NZ. Graduated December 2021.
9. **Michael Mathew (PhD)**. School of Computer Science, University of Birmingham, UK. Graduated August 2020. Current status: **Robotics Engineer at Ocado**. *Took over supervision from Dr. Jeremy Wyatt*
10. **Ermano Arruda (PhD)**. School of Computer Science, University of Birmingham, UK. Graduated August 2020. Current status: **Lead Robotics Research Engineer at Dyson**. *Took over supervision from Dr. Jeremy Wyatt*
11. **Samujjwal Bhandari (PhD)**. Department of Computer Science, Texas Tech University, USA. Graduated December 2013. *Co-supervised (50%) with Dr. Susan Urban.* Current status: **Software Development Engineer at ServiceNow Enterprise Cloud Company**.
12. **Xiang Li (PhD)**. Department of Computer Science, Texas Tech University, USA. Graduated August 2013. Current status: **Senior Researcher of Augmented Reality Research at OPPO**.
13. **Shiqi Zhang (PhD)**. Department of Computer Science, Texas Tech University, USA. Graduated August 2013. Current status: **Assistant Professor, SUNY Binghamton, USA**.

- **Research Associates:**
  1. **Tiago Mota (Research associate)**. Department of Electrical and Computer Engineering, The University of Auckland, NZ. June 2020—February 2021.
  2. **Ben Meadows (Research associate)**. Department of Electrical and Computer Engineering, The University of Auckland, NZ. June 2016—December 2019.
  3. **Heather Riley (Research associate)**. Department of Electrical and Computer Engineering, The University of Auckland, NZ. May 2017—December 2018.

- **Masters thesis students:**
  1. **Mark Robson**, MPhil. (thesis), University of Birmingham, UK; Oct 2018—May 2024; Supervisor.
  2. **Maija Filipovica**. M.S. (thesis), University of Birmingham, UK; Oct 2018—Sep 2019; Supervisor.
  3. **Ian Temple**, MRes. (thesis), University of Birmingham, UK; Sep 2018—Oct 2019; Supervisor.
  4. **Heather Riley**. M.S. (thesis), The University of Auckland, NZ; Jan 2018—Apr 2019; Supervisor.
  5. **Han Xu**. M.S. (Thesis), Texas Tech University, USA; May 2015—May 2017; Supervisor.
  6. **Sarah Rainge**, M.S. (Thesis), Texas Tech University, USA; May 2012—Aug 2014; Supervisor.
  7. **Kimia Salmani**. M.S. (Thesis), Texas Tech University, USA; Sep 2011—Aug 2013; Supervisor.
  8. **Justin Griggs**. M.S. (Thesis), Texas Tech University, USA; May 2011—Aug 2012; Co-supervisor with Dr. Richard Gale (EE).
  9. **Aaron Lee**. M.S. (Thesis), Texas Tech University, USA; Sep 2010—Dec 2011; Co-supervisor with Dr. Richard Gale (EE).
  10. **Mamatha Aerolla**. M.S. (Thesis), Texas Tech University, USA; Sep 2008—May 2011; Supervisor.

- **Past MSc project students:**
  - **Matthew Perryman, Sridhar Sola, Shankari Venkatesh, Sagar Vincent, Minrong Wang**. MSc (Taught) AI-ML/Robotics/HCI, UoB (UK); Summer 2023; Supervisor.

- **Areeb Ayubi, Nuohong Cheng, Joshua Foulkes, Hui Li, Ruibo Shen, Yanrong Wang, Xinyan Xiang**. MSc (Taught) ACS/AI-ML/Robotics, UoB (UK); Summer 2022; Supervisor.
- **Adam Hedib, Tayyab Hussain, Parth Kelkar, Varnita Rastogi, Tianxiang Sheng, Simiao Teng, Xinyu Yang**. MSc (Taught) CS/ACS/AI-ML/Robotics, UoB (UK); Summer 2021; Supervisor.
- **Jacob Adamson, Mengran Bi, Salvatore Florio, Shinjo Sato, Yan Wang, Zhangda Xu**. MSc (Taught) CS, UoB (UK); Summer 2020; Supervisor.
- **Angel Lopez, Claudiu Popa, Mingcheng Zheng, Shaoshi Bai, Yintang Ni**. MSc (Taught) CS, UoB (UK); Summer 2019; Supervisor.
- **Jacob Bailey, Robert Fall, Weidong Gao, Haotian Guo, Meng-Hua Wei, Yao Wu**. MSc (Taught) CS, UoB (UK); Summer 2018; Supervisor.
- **Jing Lu, Bin Liu**. MEngSt., UoA (NZ); 2016; Supervisor.
- **Ning Wu, Abhinav Bharadwaj, Akhil Sharma**. MEngSt., UoA (NZ); 2015; Supervisor.

- **Past undergraduate project students:**
  - **Maria Merkulova, Samuel Motog, Fan Huang, Mahitha Reddy Busetty**. BSc CS, UoB (UK); 2022-2023; Supervisor.
  - **Nathan Dancey, Christos Efstathiou, Oluwasola Samuel, Archie Watson**. BSc CS, UoB (UK); 2021-2022; Supervisor.
  - **Wenyue Jin, Adam Kona, Harry Levick, Kenny Roekasa, Jing Wen, Jiashu Zhang**. BSc CS, UoB (UK); 2020—2021; Supervisor.
  - **Hussain Albahar, Joshua Jones, Mihai Buduroi, Matei Vicovan-Hantascu**. BSc CS, UoB (UK); 2019—2020; Supervisor.
  - **James Brown, Chung Yin Cheung, Dimitar Pachev, Lyubomir Pashev, Liechun Yao**. BSc CS, UoB (UK); 2018—2019; Supervisor.
  - **Emily Melhuish, Murali Magesan, Claudia Pottinger, Tim Hughes, Heather Riley, Callum Williamson, Sunny Wang, Catherine Law**. B.E. (Hons), UoA (NZ), 2017; Supervisor.
  - **Anurag Mishra**. B.E., Army Inst. of Tech., India, Dec 2016—Feb 2017; Internship Supervisor.
  - **Soumya Puri, Tushar Taneja, David Liao, Kangxiang Yuan, Toni Otang, Keir Mitchell**. B.E. (Hons), UoA (NZ), 2016; Supervisor.
  - **Zane Gibbs**. B.E. (Hons), UoA (NZ), Nov 2015—Mar 2016; Supervisor.
  - **Prashanth Devarakonda**. B.E. (Hons), UoA (NZ), Nov 2014—Feb 2016; Supervisor.
  - **Zenon Colaco**. B.E. (Hons), UoA (NZ), Nov 2014—Dec 2015; Supervisor.
  - **Rashmica Gupta**. B.E. (Hons), UoA (NZ), Nov 2014—Nov 2015; Supervisor.
  - **Joshua Free, Michael Lo**. B.E. (Hons), UoA (NZ), 2015; Supervisor.
  - **Anna Mace**. B.S., UoA (NZ), 2015; Supervisor.
  - **Patricia Andrews**, B.S. (Colorado College); **Olatide Omojaro**, B.S. (Georgia Perimeter College); **Aaron Hester**, B.S.; **Emilie Featherston**, B.S.; June-August 2013); REU Supervisor.
  - **Christian Washington**, B.S. (Louisiana State University); **Catie Meador**, B.S. (Swarthmore College); **Sabyne Peeler**, B.S. (Florida A&M University); June-August 2012; REU Supervisor.
  - **Stephanie Graham, Shiloh Huff**, B.S. (TTU, USA); June-August 2012; REU Co-supervisor.
  - **Austin Ray, David South, Kevin Thomas**. B.S. (TTU, USA); Spring 2012; Co-supervisor.
  - **David Kari**, B.S. (California Baptist University); **Jesse Kawell**, B.S. (Samford University); **David Seibert**, B.S. (Emory University); **James Smith**, B.S. (UT Austin); June-August 2011; REU Supervisor.
  - **Mary Shuman**. B.S. (Univ. of North Carolina); June-August 2011; REU Co-supervisor.
  - **Matthew Sullivan**. B.S. (TTU, USA); January-August 2011; Supervisor.
  - **Kshira Nadarajan**. B.S. (Iowa State University); Supervisor (June-August 2010).

- **Ph.D. Examiner/External Examiner:**
  1. **Georg Schuppe**; KTH Royal Institute of Technology (Sweden); 2023.

2. **Daniel Rodriguez Criado**; Aston University (UK); 2023.
3. **Koussaila Moulouel**; Universite Paris-Est (France); 2023.
4. **Zhuoling Huang**; University of Lincoln (UK); 2022.
5. **Giulio Mazzi**; University of Verona (Italy); 2022.
6. **Angel Daruna**; Georgia Tech (USA); 2022.
7. **Martin Asenov**; University of Edinburgh (UK); 2022.
8. **Colm Flanagan**; University of New South Wales (Australia); 2021.
9. **Rafael Papallas**; University of Leeds (UK); 2021.
10. **Ashraf Zia**; Aberystwyth University (UK); 2019.
11. **Umit Rusen Aktas**; University of Birmingham (UK); 2018.
12. **Sunil Kumar C.**; Bharathiar University (India); 2017.
13. **Zhenmin Li**; The University of Auckland (NZ); 2016.
14. **Zeeshan Bhatti**; The University of Auckland (NZ); 2016.
15. **Muhammad Usman Butt**; The University of Auckland (NZ); 2016.

- **Ph.D. Research/Provisional Year Review Committee:**

  1. **University of Birmingham, UK**: Sagir Yusuf, Tuba Gokhan, Dalal Aljasem, Fatma Faruq.
  2. **The University of Auckland, NZ**: Bill Collis, Jamie Bell, Zachary Roberts, Mohd Halim Mohd Noor, Neha Sharma, Mohd Nazrin bin Muhammad.

- **Masters Project Assessor:**

  1. **Rui Zhang**. MEngSt. project; The University of Auckland, NZ (ECE); 2016.
  2. **Ahtasham Chaudhry**. MEngSt. project; The University of Auckland, NZ (ECE); 2015.
  3. **V. N. Rohit Gunturi**. MEngSt. project; The University of Auckland, NZ (ECE); 2015
  4. **Anvay Kumar**. MEngSt. project; The University of Auckland, NZ (ECE); 2014.
  5. **Kedar Hippalgaonkar**. M.S. project; Texas Tech University, USA; August 2012.
  6. **Jamila Murabbi**. M.S. project; Texas Tech University, USA; August 2011.
  7. **Arisoa Randrianasolo**. M.S.; Texas Tech University, USA; May 2010.

- **Training for Teaching and Leadership:**

  1. **CLeaR Lights Leadership in Teaching**, Program offered by the *Centre for Learning and Research in Higher Education* (CLeaR), The University of Auckland.
  2. **Teaching Catalyst: Documenting your Teaching**, Workshop organized by the *Centre for Learning and Research in Higher Education* (CLeaR), The University of Auckland.
  3. **Service Learning Faculty Fellow**, Program offered by the Teaching, Learning and Professional Development Center (TLPDC), Texas Tech University.
  4. **Institute of Inclusive Excellence Fellow**, Program offered by the *Division of Institutional Diversity, Equity & Community Engagement* and the *Teaching, Learning, and Professional Development Center* (TLPDC), Texas Tech University.

PROFESSIONAL (SERVICE) ACTIVITIES

- **Editor, Associate Editor, Chair, Senior Program Committee:**
  - **Chair/Co-Chair:**
    - Co-chair (with Mark Burstein): *Annual Conference on Advances in Cognitive Systems* (2021).
    - Demo Track Co-Chair, *International Conference on Autonomous Agents and Multiagent Systems, AAMAS* (2020).
    - Robotics Track Co-Chair, *International Conference on Autonomous Agents and Multiagent Systems, AAMAS* (2019).
  - **Editor/Co-Editor:**
    - Co-editor (with Gerald Tesauro and James Hendler): *IEEE Intelligent Systems* special issue on Cognitive Computing (2016—2017).

- Section Editor; *Journal of Physical Agents* (2013-2016).
- **Associate Editor:**
  - *Machine Learning and Artificial Intelligence*, speciality section of Frontiers in Big Data and Frontiers in Artificial Intelligence (2021—present).
  - *International Conference on Robotics and Automation, ICRA* (2020—2015, 2012).
  - *International Journal of Advanced Robotic Systems* (2014-2018).
  - *Artificial Intelligence Review Journal* (2014-2016).
  - *International Conference of Intelligent Robots and Systems, IROS* (2011).
- **Senior Program Committee:**
  - *European Conference on Artificial Intelligence, ECAI* (2024, 2023).
  - *International Joint Conference on Artificial Intelligence, IJCAI* (2024, 2023, 2017, 2016, 2013).
  - *International Conference on Autonomous Agents and Multiagent Systems* (2016, 2015).
  - *AAAI Conference on Artificial Intelligence* (2014).

- **Organizing Committee:**
  - *Autonomous Robots and Multirobot Systems* (ARMS) workshop at International Conference on Autonomous Agents and Multiagent Systems (2024, 2023).
  - *Explainability in Integrated Cognitive Systems Combining Logic-based Reasoning and Data-driven Learning*, week-long course at European Summer School in Logic, Language, and Information (2022); *Course instructor*.
  - *Knowledge-based Sequential Decision-Making under Uncertainty* tutorial at the AAAI Conference (2019); *Committee co-chair*.
  - *Integrating Representation, Reasoning, Learning and Execution for Goal-Directed Autonomy* symposium at the AAAI Spring Symposium Series (2018).
  - *Knowledge Representation and Reasoning in Robotics* (KRR) symposium at the AAAI Spring Symposium Series (2014); *Committee chair*.
  - *Knowledge Representation and Reasoning in Robotics* (KRR) workshop at International Conference on Logic Programming (2013); *Committee chair*.
  - *Bayesian Methods for Data Analysis in Software Engineering* tutorial at the International Conference on Software Engineering (2010); *Committee co-chair*.

- **Program Committee Member:**
  - *Robotics, Science and Systems, RSS* (2023, 2020, 2006).
  - *AAAI Conference on Artificial Intelligence* (2023, 2022, 2020—2016); *AAAI Doctoral Consortium* (2021—2020); *AAAI Demo Track* (2021); *AAAI Integrated Intelligence Track* (2011).
  - *International Conference on Autonomous Agents and Multiagent Systems, AAMAS* (2023-2021, 2018, 2017, 2014, 2013, 2009).
  - *International Conference on Automated Planning and Scheduling, ICAPS* (2023).
  - *International Joint Conference on Artificial Intelligence, IJCAI* (2022, 2020, 2018, 2009); *IJCAI Doctoral Consortium* (2023).
  - *International Conference on Logic Programming, ICLP* (2022-2019); *International Conference on Principles of Knowledge Representation and Reasoning, KR* (2023—2021).
  - *Cognitive Aspects of Knowledge Representation Workshop* at IJCAI (2022).
  - *International Conference on Robotics and Automation, ICRA* (2022).
  - *International Conference of Intelligent Robots and Systems, IROS* (2022).
  - *International Conference on Automation Science and Engineering, CASE* (2022).
  - *Workshop on Autonomous Robots and Multi-Robot Systems* (2022—2020).
  - *European Conference on Artificial Intelligence, ECAI* (2020, 2014).
  - *Annual Conference on Advances in Cognitive Systems, ACS* (2021—2018).
  - *International Conference on Robot Learning, CoRL* (2019—2018).
  - *International Symposium on Multi-Robot and Multi-Agent Systems, MRS* (2019).

- *International Conference on Human-Agent Interaction, HAI* (2018).
- *Intelligent Robotics and Multi-Agent Systems, IRMAS* track of the ACM SAC (2018, 2015).
- *International Conference on Robotic Computing, IRC* (2018); *International RoboCup Symposium* (2017—2006); *International Conference on Simulation, Modeling and Programming for Autonomous Robots, SIMPAR* (2016, 2012, 2010, 2008).
- *Workshop on Computer Vision+Ontology Applied Cross-Disciplinary Technologies* at ECCV (2014).
- *International Workshop on Robot Vision, VISAPP* (2008, 2007).
- *Symposium on Image and Video Technology, PSIVT* (2010—2007).
- *International Workshop on Multi-Agent Robotic Systems, MARS* (2008—2005).

- **Reviewer for Journals and Books:**
  - *Neural Networks* (2023-2022).
  - *Frontiers in Robotics and Artificial Intelligence* (2022, 2021, 2020).
  - *User Modeling and User-Adapted Interaction* (2022, 2021).
  - *Journal of Artificial Intelligence Research* (2022, 2021).
  - *Journal of Autonomous Agents and Multiagent Systems* (2021, 2020, 2013-2009).
  - *Knowledge-Based Systems* (2021); *Kunstliche Intelligenz Journal* (2020).
  - Book proposal review, *Cambridge Univ. Press* (2020); Book chapters review, *Robotic Vision: Technologies for Machine Learning and Vision Applications* (2012); Book proposal review, *Wiley-Blackwell* (2009).
  - *Artificial Intelligence Journal* (2019, 2013); *IEEE Intelligent Systems* (2017, 2016).
  - *International Journal of Advanced Robotic Systems* (2016, 2012); *Journal of Intelligent and Robotic Systems* (2016, 2013—2011); *IEEE Transactions on Robotics* (2015, 2014).
  - *Advances in Cognitive Systems* (2015); *IEEE Transactions on Autonomous Mental Development* (2015); *Transactions on Systems Cybernetics and Man, Part B* (2011).
  - *Knowledge Engineering* (2011); *IEEE Systems Journal* (2011).
  - *Transactions on Industrial Electronics* (2010); *Advanced Artificial Intelligence* (2009).
  - *Machine Vision Applications* (2009—2007); *Computer Vision Applications* (2009).
  - *Transactions on Pattern Analysis and Machine Intelligence* (2008).
  - *Robotics and Autonomous Systems* (2008, 2005); *Transactions of Industrial Engineering* (2008); *International Journal of Robotics Research* (2007); *Autonomous Robots* (2004).

- Member of the Technical Committee (2007—2005) and Organizing Committee (2006) of the RoboCup Four-Legged League.

- **Proposal Reviews:**
  - European Research Council, reviewer; 2023, 2020.
  - Israeli Ministry of Science and Technology, reviewer; 2023.
  - Swiss National Science Foundation, reviewer; 2022-2020.
  - Czech National Science Foundation, reviewer; 2022-2021, 2016-2015.
  - UK Engineering and Physical Sciences Research Council; 2022-2021.
  - US-Israel Agricultural Research and Development Fund, reviewer; 2020.
  - Icelandic Research Fund, reviewer; 2020.
  - ORCA Hub ISA Panel, reviewer; 2019.
  - AI Singapore Research Programme, reviewer; 2019, 2018.
  - German Academic Exchange (Deutscher Akademischer Austausch Dienst, DAAD), reviewer; 2017.
  - US National Science Foundation, review panel; 2013, 2012, 2010, 2009.

- **Outreach Activities (UoE):**
  - *I'm a Scientist: Get me out of here!* (2024).

- **Service to the School and University (UoB):**

  - MSc (Robotics) Program and Admissions Director, School of Computer Science (2018—2023).
  - SoCS Recruitment Working Group (2022—2023).
  - Staff wellbeing champion (2021—2022).
  - Open Day talks on AI and Robotics (2018—2022).
  - Welcome Week talks on AI and Robotics (2018—2022).
  - Staff recruitment coordinator (2019—2021).

- **Outreach Activities (UoB):**
  - *I'm a Scientist: Get me out of here!* (2021).
  - On-campus robot demonstrations for local school students, industry boards (2018—2023).

- **Professional Service (UoA):**
  - IEEE New Zealand North Section Vice-Chair (2017).
  - IEEE New Zealand North Section Treasurer (2015–2016).

- **Service to the Department and University (UoA):**
  - Part IV Projects Co-coordinator, Electrical and Computer Engineering (2017).
  - Deputy Director (Computer Systems), Electrical and Computer Engineering (2016—2018).
  - ECE Representative, Faculty of Engineering *ChallENG* Initiative (2015).
  - ECE (Computer Systems Engineering) Representative, *Courses and Careers Day* (2015, 2014).
  - Part IV projects seminar and report marking: September-October (2015, 2014).

- **Service to the Department and University (TTU):**
  - CS Faculty Search Committee: Aug 2013—Mar 2014.
  - CS Strategic Planning Committee: Sep 2013—Mar 2014.
  - CS Department Advisory Committee: Sep 2013—Mar 2014.
  - CS Department Relations Committee: Sep 2013—May 2014.
  - Graduate School Scholarship Review: Mar 2014; Jul 2013; Mar 2013.
  - College of Engineering *Grade Appeal Board*: May 2013, July 2011.
  - CS Graduate Admissions Comm.: Apr—May 2014; Aug 2010—2013; Oct 2008—Aug 2009.
  - CS Undergraduate Program Committee: Aug 2012—2013; Aug 2009—Jul 2010.
  - CS Graduate Students Seminar (supervisor): Fall 2012.
  - CS Graduate Program Committee: Aug 2010—2012; Oct 2008—Aug 2009.
  - CS Research Task Force: Aug 2009—Jul 2010.

- **Outreach Activities (TTU):**
  - On-campus robot demonstrations for local middle school and high school students, e.g., Society of Women Engineers' *Catch the Engineering Bug* event and visits by high school students from local school districts (2008—2014).
  - Judge on-campus robotics competitions for regional elementary, middle school and high school students (2011—2014).
  - Off-campus robot demonstrations at schools and science fairs (2010—2014).
  - *Science Its a Girl Thing* summer camp; middle school students learned core computing concepts using an educational tool that integrates 3D programming with robotics (July 2012).
  - *Native American Summer Bridge Institute* (NASBI); high school students learned about computer science, artificial intelligence and robotics (June 2012, July 2011).
  - *Institute of Inclusive Excellence* Fellow; Division of Institutional Diversity, Equity and Community Engagement (Fall 2011—Spring 2012).
  - Two-week *robotics summer workshop* for high school students at Abilene's Academy of Technology, Engineering, Math and Science (ATEMS): students learned core computing concepts by programming robots (July 2010).

References: Available on request.