Joydeep Biswas

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Professional Experience

2023 - Present	Associate Professor	Computer Science Department, University of Texas at Austin, TX, USA
2024 - Present	Visiting Professor	NVIDIA
2017 - 2023	Technical Advisor	Consumer Robotics, Amazon Lab 126
2019 - 2023	Assistant Professor	Computer Science Department, University of Texas at Austin, TX, USA
2019 - 2023	Adjunct Assistant Professor	College of Information and Computer Sciences, University of Massachusetts Amherst, MA, USA
2015 - 2019	Assistant Professor	College of Information and Computer Sciences, University of Massachusetts Amherst, MA, USA
2015	Post-Doctoral Fellow	Computer Science Department, Carnegie Mellon University, Pittsburgh, PA, USA
2012	Research Intern	Google Research, Mountain View, CA, USA
2010	Research Intern	Intel Research, Pittsburgh, PA, USA

Education

2014	Ph.D. in Robotics	Carnegie Mellon University
2010	M.S. in Robotics	Carnegie Mellon University
2008	B.Tech. in Engineering Physics	Indian Institute of Technology, Bombay

Achievements and Awards

2024	Best Paper Award, ACM CHI Conference on Human Factors in Computing Systems
2024	JP Morgan Faculty Research Award
2022	1st Place, Benchmark Autonomous Robot Navigation (BARN) Challenge, ICRA 2022
2021	NSF CAREER Award
2019	Student Best Poster Award, Northrop Grumman University Symposium
2019	IJCAI Early Career Spotlight
2019	Amazon Research Award
2018	JP Morgan AI Faculty Research Award
2018	Best Demo Award, AAMAS 2018
2017	Lower Bracket 1st place, RoboCup 2017 Small Size League, *UMass MinuteBots*, Faculty Team Leader
2015	Siebel Scholar, Class of 2015
2015	1st place, RoboCup 2015 Small Size League, *CMDragons*, Student Team Leader
2014	2nd place, RoboCup 2014 Small Size League, *CMDragons*, Student Team Leader
2013	2nd place, RoboCup 2013 Small Size League, *CMDragons*, Student Team Leader
2010	2nd place, RoboCup 2010 Small Size League, *CMDragons*, Team Member

Professional Service

2023 - Present	RoboCup Federation Trustee
2023 - Present	AAAI Executive Council Member
2023 - Present	Associate Editor, International Journal of Robotics Research (IJRR)
2022 - Present	Associate Editor, Elsevier Robotics and Autonomous Systems
2023, 2024	Robotics Area Chair, International Joint Conference on Artificial Intelligence (IJCAI)
2033 - 2023	Diversity and Inclusion Co-Chair, AAAI Conference on Artificial Intelligence (AAAI)
2022	Co-Organizer, Texas Regional Robotics Symposium
2020 - 2021	RoboCup Symposium Co-Chair
2019	Robotics Track Co-Chair, International Conference on Autonomous Agents and Multiagent Systems (AAMAS)

Selected Publications

Full list of publications available at http://www.joydeepb.com/publications

[1] Connor Basich, Justin Svegliato, Kyle H Wray, Stefan Witwicki, Joydeep Biswas, and Shlomo Zilberstein. "Competence-aware systems." In: *Artificial Intelligence* 316 (2023), p. 103844.

[2] Sadegh Rabiee and Joydeep Biswas. "Introspective Perception for Mobile Robots." In: *Artificial Intelligence* 324 (2023), p. 103999. ISSN: 0004-3702. DOI: https://doi.org/10.1016/j.artint.2023.103999.

[3] Sadegh Rabiee, Connor Basich, Kyle Hollins Wray, Shlomo Zilberstein, and Joydeep Biswas. "Competence-Aware Path Planning via Introspective Perception." In: *IEEE Robotics and Automation Letters* (2022), pp. 3218–3225. DOI: 10.1109/LRA.2022.3145517.

[4] Sadegh Rabiee and Joydeep Biswas. "IV-SLAM: Introspective Vision for Simultaneous Localization and Mapping." In: *Conference on Robot Learning*. 2020, pp. 1100–1109.

[5] Arthur Zhang, Chaitanya Eranki, Christina Zhang, Ji-Hwan Park, Raymond Hong, Pranav Kalyani, Lochana Kalyanaraman, Arsh Gamare, Arnav Bagad, Maria Esteva, and Joydeep Biswas. *Towards Robust Robot 3D Perception in Urban Environments: The UT Campus Object Dataset*. 2023. arXiv: 2309.13549 [cs.RO].

[6] Jimmy Xin, Linus Zheng, Kia Rahmani, Jiayi Wei, Jarrett Holtz, Isil Dillig, and Joydeep Biswas. "Programmatic Imitation Learning From Unlabeled and Noisy Demonstrations." In: *IEEE Robotics and Automation Letters* 9.6 (2024), pp. 4894–4901. DOI: 10.1109/LRA.2024.3385691.

[7] Jiayi Wei, Jarrett Holtz, Isil Dillig, and Joydeep Biswas. "STEADY: Simultaneous State Estimation and Dynamics Learning from Indirect Observations." In: *Intelligent Robots and Systems (IROS), IEEE/RSJ International Conference on*. IEEE. 2022, pp. 6593–6599. DOI: 10.1109/IROS47612.2022.9981279.

[8] Jarrett Holtz, Simon Andrews, Arjun Guha, and Joydeep Biswas. "Iterative Program Synthesis for Adaptable Social Navigation." In: *Intelligent Robots and Systems (IROS), IEEE/RSJ International Conference on*. 2021, pp. 6256–6261. DOI: 10.1109/IROS51168.2021.9636540.

[9] Jarrett Holtz, Arjun Guha, and Joydeep Biswas. "Robot Action Selection Learning via Layered Dimension Informed Program Synthesis." In: *Conference on Robot Learning*. 2020, pp. 1471–1480.

[10] Jarrett Holtz, Arjun Guha, and Joydeep Biswas. "Interactive Robot Transition Repair With SMT." In: *International Joint Conference on Artificial Intelligence (IJCAI)*. 2018, pp. 4905–4911. DOI: 10.24963/ijcai.2018/681.