

Raksha Kumaraswamy

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Employment

- 2023–present **Research Scientist**, *Sony AI*, Toronto, Ontario, Canada
- 2021–2023 **Senior Researcher**, *Huawei Technologies Canada Co. Ltd.*, Edmonton, Alberta, Canada

Education

- 2017–2021 **Ph.D., Computing Science (transfer student)**, *University of Alberta*, Edmonton, Alberta, Canada
Co-advisors: Martha White, Adam White
- 2015–2017 **Ph.D., Computer Science**, *Indiana University Bloomington*, Indiana, United States
Advisor: Martha White
- 2013–2015 **M.S., Computer Science**, *Indiana University Bloomington*, Indiana, United States
Advisor: Martha White
- 2008–2012 **B.E., Computer Science**, *Visvesvaraya Technological University, S. J. B. Institute of Technology*, Karnataka, India

Research Interests

Machine learning, representation learning, reinforcement learning.

Research Experience

- 2017–2021 **Research Assistant**, *Reinforcement Learning and Artificial Intelligence lab, University of Alberta*, Edmonton, Canada
Advisor: Martha White
- 2015–2017 **Research Assistant**, *Machine Learning lab, Indiana University Bloomington*, Indiana, United States
Advisor: Martha White
- 2013–2015 **Research Assistant**, *StaR-AI lab, Indiana University Bloomington*, Indiana, United States
Advisor: Sriraam Natarajan
- Winter 2013 **Research Assistant**, *Game Theory lab, Indian Institute of Science*, Karnataka, India
Advisor: Y. Narahari

Teaching Experience

- Fall 2019 **CMPUT 466/566: Machine Learning**, *University of Alberta*
- Fall 2018 **CMPUT 366: Intelligent Systems**, *University of Alberta*

Conference Papers

- [1] H. Wang, E. Miah, M. White, M. C. Machado, Z. Abbas, R. Kumaraswamy, V. Liu, and A. White. *Investigating the properties of neural network representations in reinforcement learning*. RLC, 2024.
- [2] A. Patterson, S. Neumann, R. Kumaraswamy, M. White, and A. M. White. *The cross-environment hyperparameter setting benchmark for reinforcement learning*. RLC, 2024.
- [3] B. Rafiee, Z. Abbas, S. Ghiassian, R. Kumaraswamy, R. S. Sutton, E. A. Ludvig, and A. White. *From eye-blinks to state construction: Diagnostic benchmarks for online representation learning*. AB, 2023.
- [4] E. Graves, E. Imani, R. Kumaraswamy, and M. White. *Off-policy actor-critic with emphatic weightings*. JMLR, 2023.
- [5] M. McLeod, C. Lo, M. Schlegel, A. Jacobsen, R. Kumaraswamy, M. White, and A. White. *Continual Auxiliary Task Learning*. NeurIPS, 2021.
- [6] V. Liu, R. Kumaraswamy, L. Li, and M. White. *The Utility of Sparse Representations for Control in Reinforcement Learning*. AAAI, 2019.
- [7] R. Kumaraswamy, M. Schlegel, A. White, and M. White. *Context-dependent upper-confidence bounds for directed exploration*. NeurIPS, 2018.
- [8] L. Le, R. Kumaraswamy, and M. White. *Learning Sparse Representations in Reinforcement Learning with Sparse Coding*. IJCAI, 2017.
- [9] P. Odom, R. Kumaraswamy, K. Kersting, and S. Natarajan. *Learning through Advice-Seeking via Transfer*. ILP, 2016.
- [10] R. Kumaraswamy, P. Odom, K. Kersting, D. Leake, and S. Natarajan. *Transfer Learning via Relational Type Matching*. ICDM, 2015.

Posters

- [1] R. Kumaraswamy, L. Le, and M. White. *Learning Sparse Representations in Reinforcement Learning with Sparse Coding*. RLDM, 2017.
- [2] R. Kumaraswamy, A. Wazalwar, T. Khot, J. Shavlik, and S. Natarajan. *Anomaly Detection in Text: The Value Of Domain Knowledge*. FLAIRS, 2015.

Workshop Papers

- [1] R. Kumaraswamy, P. Odom, K. Kersting, D. Leake and S. Natarajan. *Transfer Learning Across Relational and Uncertain Domains: A Language-Bias Approach*. StarAI, 2015.

Presentations

Transfer Learning via Relational Type Matching. ICDM, November 2015.

Awards

2018 Volunteer Award, NeurIPS
2015 Travel Award, ICDM
2015 Best Poster Award, FLAIRS

Service

Reviewer AAAI (2019), ICLR (2019–Present), ICML (2019–Present), NeurIPS (2019–Present),
RLC (2024–Present)

Departmental Computer Science Colloquium Committee, IUB (2016–2017)

University Events Chair for Women In Computing (2013–2014)