

Rupali Bhati

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EDUCATION

Northeastern University (Supervisor: Christopher Amato)
Ph.D., Computer Science
GPA: 3.9/4.0

Boston, U.S.A.
Sep 2023 - Present

Université Laval/ Mila (Supervisor: Audrey Durand)
Masters, Computer Science (with thesis)
GPA: 4.2/4.3

Quebec, Canada
Sep 2020 - Aug 2023

Delhi Technological University (Supervisor: Indu Sreedevi)
Bachelors, Electronics and Communication Engineering
Aggregate percentage: 72.29% (WES equivalent 3.55/4.0)

New Delhi, India
Aug 2012 - May 2016

PUBLICATIONS

10. The Influence of Scaffolds on Coordination Scaling Laws in LLM Agents [\[link\]](#)
Mariana Meireles*, **Rupali Bhati***, Niklas Lauffer, Cameron Allen (*= equal contribution)
NeurIPS 2025 Scaling Environments for Agents Workshop

9. Fixing Incomplete Value Function Decomposition for Multi-Agent Reinforcement Learning [\[link\]](#)
Andrea Baisero, **Rupali Bhati**, Shuo Liu, Aathira Pillai, Christopher Amato
Under Submission

8. On Stateful Value Factorization in Multi-Agent Reinforcement Learning [\[link\]](#)
Enrico Marchesini, Andrea Baisero, **Rupali Bhati**, Christopher Amato
AAMAS 2025

7. Scalable Approaches for a Theory of Many Minds [\[link\]](#)
Maximilian Puelma Touzel, Amin Memarian, Matthew Riemer, Andrei Mircea Romascanu, Andrew Williams, Elin Ahlstrand, Lucas Lehnert, **Rupali Bhati**, Guillaume Dumas, Irina Rish
ICML 2024 Agentic Markets Workshop

6. Curriculum Learning for Cooperation in Multi-Agent Reinforcement Learning [\[link\]](#)
Rupali Bhati, SaiKrishna Gottipati, Clodéric Mars, Matthew E. Taylor
NeurIPS 2023 Agent Learning in Open-Endedness Workshop

5. Performative Prediction in Time Series: A Case Study [\[link\]](#)
Rupali Bhati, Jennifer Jones, Kristin Campbell, David Langlier, Anthony Reiman, Jonathan Greenland, Audrey Durand
NeurIPS 2022 Workshop on Learning from Time Series for Health

4. Summarizing Societies: Agent Abstraction in Multi-Agent Reinforcement Learning [\[link\]](#)
Amin Memarian, Maximilian Puelma Touzel, Matthew D Riemer, **Rupali Bhati**, Irina Rish
ICLR 2022 From Cells to Societies: Collective Learning across Scales Workshop

3. Interpret Your Care: Predicting the Evolution of Symptoms for Cancer Patients [\[link\]](#)
Rupali Bhati, Jennifer Jones, Audrey Durand
AAAI 2022 Trustworthy AI for Healthcare Workshop

2. CARL: Conditional-value-at-risk Adversarial Reinforcement Learning [\[link\]](#)
Mathieu Godbout, Maxime Heuillet, Sharath Chandra, **Rupali Bhati**, Audrey Durand
AAAI 2022 Safe AI Workshop

1. A Reinforcement Learning Approach to Jointly Adapt Vehicular Communications and Planning for Optimized Driving [\[link\]](#)
Mayank K. Pal, **Rupali Bhati**, Anil Sharma, Sanjit K. Kaul, Saket Anand, P.B.Sujit
IEEE ITSC 2018

RESEARCH AND PROFESSIONAL EXPERIENCE

- Research Intern, Center for Human Compatible AI (CHAI), UC Berkeley**
Supervisor: Niklas Lauffer *May 2025 - Aug 2025*
• Worked on a project exploring the effect of scaffolding on cooperative strategies between LLMs of different skill levels.
- Graduate Research Assistant, Northeastern University**
Supervisor: Christopher Amato *Sep 2023 - Present*
• Working on value factorisation methods to improve cooperation using multi-agent reinforcement learning methods.
- Machine Learning Alignment & Theory (MATS) Scholar**
Supervisor: Christian Schroeder de Witt *June 2024 - Aug 2024*
• Explored the validity of the individual global max (IGM) principle during training in value decomposition methods using multi-agent reinforcement learning.
- Research Intern**
AI Redefined *Jan 2023 - Jul 2023*
• Worked on achieving cooperation in multi-agent settings via curriculum learning and reinforcement learning in the game of Overcooked.
- Graduate Research Assistant, Université Laval & Mila**
Supervisor: Audrey Durand *Sep 2020 - Aug 2023*
• Addressed the problem of performative prediction in time-series data for predicting cancer-related fatigue and pain and successfully found stable points by applying repeated performative training.
• Formulated agent abstraction in the multi-agent setting and showed how it can help disentangle non-stationarity in the game of Diplomacy and achieve higher compression.
- Reinforcement Learning Consultant**
Multiple Companies *Sep 2018 - Aug 2020*
• At Bert Labs, applied RL to increase the energy efficiency of a HVAC system. For a leading global FMCG company's headquarters building, using DQN, increased efficiency of their Air-Handling Unit system by over 70% as compared to classical PID logic.
• Conducted a week long workshop to teach fundamentals of RL to employees at Adventum. Consulted on application of RL to improve segmentation in medical images.
• Worked with CatapulZ to develop RL blue agents to Capture-The-Flag in cybersecurity applications.
• Worked at UpGrad as a Domain Expert to develop an end-to-end solution for a model inventory management problem to meet next-to-next day demand using DDQN.
- Research Assistant, Indraprastha Institute of Information Technology - Delhi**
Supervisor: Saket Anand *Sep 2017 - Aug 2018*
• Trained an autonomous vehicle to smartly adapt communications and planning actions, while achieving large driving utilities using Q-learning.
- Data Analyst**
KPMG *Jun 2016 - Aug 2017*
• In collaboration with Microsoft, developed an algorithm using policy iteration for automating 'Dynamic Pricing of Tickets' to maximise revenue and help reduce human effort by upto 70-80%.
• Researched use cases of predictive and descriptive analytics to provide business insights to various government organisations which helped them automate processes and boost efficiency.

SCHOLARSHIPS AND AWARDS

- 2023 Khoury Distinguished Fellowship.
- 2023 Awarded Sony Interactive Entertainment Scholarship to attend the Summer School on AI and Games. Awarded first place at Game AI Jam at the Summer School on AI and Games.
- 2022 Google CSRMP: Selected for Google Computer Science Research Mentorship Program with mentor Wenhao Yu.
- 2022 Second place at the Rendez-Vous IA Quebec.

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- 2022 Institute of Intelligence and Data (IID) Laval Tuition Scholarship.
 - 2022 Nominated for **Women in Artificial Intelligence Awards** North America.
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TEACHING EXPERIENCE	<ul style="list-style-type: none">• Teaching Assistant, <i>CS 5100: Foundations of AI</i>, Northeastern University• Teaching Assistant, <i>GIF-7005: Introduction to ML</i>, Université Laval• Mentor, Codementor [link]• Teaching Assistant, Coding Blocks [link]• Teaching Assistant, UpGrad	<i>Fall 2025</i> <i>Fall 2021</i> <i>Fall 2019 - Summer 2020</i> <i>Summer 2018</i> <i>Fall 2018</i>
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SERVICE	<p>Organiser: Coordination and Cooperation in Multi-Agent Reinforcement Learning (CoCo-MARL) Workshop at The Reinforcement Learning Conference 2024 [link]</p> <p>Organiser: Multi-Agent Learning Seminar [link]</p> <p>Reviewer: NeurIPS 2023, Montreal AI Symposium 2022, ITSC 2018</p> <p>Facilitator: ICML WiML UnWorkshop: Machine Learning for Physical Sciences 2022</p>
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