Pratik Gajane

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Academic Experience

2021 to - **Eindhoven University of Technology (The Netherlands)**
Position **Postdoctoral researcher**
Adviser Prof. Mykola Pechenizkiy

2018 to 2021 **Montanuniversität Leoben (Austria)**
Position **Postdoctoral researcher**
Advisers Prof. Peter Auer and Prof. Ronald Ortner

Education

2014 to 2017 **INRIA Lille-team SequeL, Université Lille & Orange labs (France)**
Qualification **PhD**
Thesis Sequential learning and decision making with partial feedback
Advisers Prof. Philippe Preux and Dr. Tanguy Urvoy

2012 to 2014 **IIT Madras (India)**
Qualification **Master of Technology in Computer Science**, CGPA : **9.19/10**
Thesis Methods for the Multi-Armed Bandit problem
Adviser Prof. Balaraman Ravindran

2005 to 2009 **University of Pune (India)**
Qualification **Bachelor of Engineering in Computer Science**, **First Class**

Preprints

- Pratik Gajane, Akrati Saxena, Maryam Tavakol, George Fletcher and Mykola Pechenizkiy. "Survey on Fair Reinforcement Learning: Theory and Practice".
- Pratik Gajane, Peter Auer and Ronald Ortner. "Autonomous Exploration for Navigating in MDPs using Blackbox RL Algorithms".
- Pratik Gajane, Ronald Ortner, Peter Auer and Csaba Szepesvari. "Autonomous exploration for navigating in non-stationary CMPs". URL .
- Sayantan Bhadra, Pratik Gajane and Balaraman Ravindran, "A Rank Correlation Based Method for the Stochastic Budgeted Multi-armed Bandit Problem".

Peer-reviewed Publications

- Danil Provodin, Pratik Gajane, Mykola Pechenizkiy and Maurits Kaptein. An Empirical Evaluation of Posterior Sampling for Constrained Reinforcement Learning. In the Reinforcement Learning for Real Life Workshop at NeurIPS, 2022
- Danil Provodin, Pratik Gajane, Mykola Pechenizkiy and Maurits Kaptein. "The Impact of Batch Learning in Stochastic Linear Bandits, in the proceedings of the 22nd International Conference on Data Mining (ICDM), 2022.
- Danil Provodin, Pratik Gajane, Mykola Pechenizkiy and Maurits Kaptein. "The Impact of Batch Learning in Stochastic Bandits", in the workshop on Ecological Theory of Reinforcement Learning, NeurIPS 2021.

- Filipo Studzinski Perotto, Sattar Vakili, Pratik Gajane, Yaser Faghan and Mathieu Bourgais. "Gambler Bandits and the Regret of Being Ruined", in the proceedings of the 20th International Conference on Autonomous Agents and Multiagent Systems (AAMAS), 2021.
- Ronald Ortner, Pratik Gajane and Peter Auer. "Variational Regret Bounds for Reinforcement Learning", in the proceedings of the 35th Conference on Uncertainty in Artificial Intelligence (UAI), 2019.
- Peter Auer, Pratik Gajane and Ronald Ortner. "Adaptively Tracking the Best Bandit Arm with an Unknown Number of Distribution Changes", in the proceedings of the 32nd Annual Conference on Learning Theory (COLT), 2019.
- Peter Auer, Yifang Chen, Pratik Gajane, Chung-Wei Lee, Haipeng Luo, Ronald Ortner and Chen-Yu Wei. "Achieving Optimal Dynamic Regret for Non-stationary Bandits without Prior Information", in the proceedings of the 32nd Annual Conference on Learning Theory (COLT), 2019.
- Pratik Gajane, Ronald Ortner and Peter Auer. "A Sliding-Window Approach for Reinforcement Learning in MDPs with Arbitrarily Changing Rewards and Transitions", in Lifelong Learning: A Reinforcement Learning Approach Workshop at FAIM 2018. **Best Paper Award**.
- Pratik Gajane and Mykola Pechenizkiy. "On Formalizing Fairness in Prediction with ML", in the 5th Workshop on Fairness, Accountability, and Transparency in Machine Learning (FAT/ML) 2018.
- Pratik Gajane, Tanguy Urvoy and Emilie Kaufmann. "Corrupt Bandits for Preserving Local Privacy", in the proceedings of the 29th International Conference on Algorithmic Learning Theory (ALT) 2018.
- Carolin Lawrence, Pratik Gajane and Stefan Riezler. "Counterfactual Learning for Machine Translation: Degeneracies and Solutions", in the workshop for Causal Inference and Machine Learning for Intelligent Decision Making, NeurIPS 2017.
- Pratik Gajane, Tanguy Urvoy and Emilie Kaufmann. "Corrupt bandits", in the 13th European Workshop on Reinforcement Learning (EWRL) 2016.
- Pratik Gajane, Tanguy Urvoy and Fabrice Clerot. "A Relative Exponential Weighing Algorithm for Adversarial Utility-based Dueling Bandits", in the proceedings of the 32nd International Conference on Machine Learning (ICML), 2015.
- Pratik Gajane and Tanguy Urvoy. "Utility-based Dueling Bandits as a Partial Monitoring Game", in the 12th European Workshop on Reinforcement Learning (EWRL) 2015.

Professional Activities

Reviewer	JMLR, ICML, NeurIPS, AISTATS, ICLR, ACM Conference on Fairness, Accountability, and Transparency , Journal for General Philosophy of Science, Frontiers
Program committee	UAI (top program committee member 2022), ALT, European Workshop on Reinforcement Learning, Trustworthy NLP Workshop.

Teaching

2022-23 Q1	Reinforcement Learning (Responsible lecturer)	Eindhoven Univ. of Technology	MSc	35 students
2022-23 Q1	Embodying Intelligent Behavior in Social Context (Co-lecturer)	Eindhoven Univ. of Technology	MSc	41 students
2021-22 Q4	Data Intelligence (Project supervision)	Eindhoven Univ. of Technology	MSc	50 students
2013-14 S2	Data Mining (TA)	IIT Madras	BSc	~ 20 students
2013-14 S1	Introduction to Machine Learning (TA)	IIT Madras	BSc	~ 60 students
2012-13 S2	Computational Engineering (TA)	IIT Madras	BSc	~ 50 students
2012-13 S1	Introduction to Research (TA)	IIT Madras	BSc	~100 students

Supervision

PhD

2022-Present	Vishnu Tankasala Veparala	Co-supervisor	Eindhoven Univ. of Technology
2021-present	Danil Provodin	Co-supervisor	Eindhoven Univ. of Technology

MSc

2022-Present	Jiong Li	Co-supervisor	Eindhoven Univ. of Technology
2022-Present	Wouter van der Wee	Co-supervisor	Eindhoven Univ. of Technology
2022-Present	Ricardo van der Aa	Co-supervisor	Eindhoven Univ. of Technology

Pedagogical Courses

2022	Teaching Skills	Eindhoven University of Technology
2022	Designing Courses & Projects	Eindhoven University of Technology
2022	Facilitating Learning	Eindhoven University of Technology
2021	Supervision of PhD Students	Eindhoven University of Technology

Projects

Feb 2021 - Present	NWO TOP TEPAIV project	Partner
Feb 2018 - Jan 2021	CHIST-ERA project - Dynamically Evolving Long-Term Autonomy (DELTA)	Partner

Selected Invited Talks

Sept 4, 2019	DeepMind, Google London
Dec 28, 2018	IIT Madras, Department of Computer Science and Engineering
Nov 22, 2017	Montanuniversität Leoben, Lehrstuhl für Informationstechnologie
June 7, 2017	Heidelberg University, Statistical Natural Language Processing Colloquium

Industry Experience

2009-2011	Infosys Information technology consulting company, *Systems Engineer*

Skills

Informatics

Programming	C, C++, Java, Python, MATLAB
ML tools	Tensorflow, Weka (Waikato Environment for Knowledge Analysis), RapidMiner
Misc.	LaTeX, Apache Subversion, HTML/CSS, OS: GNU/Linux, Windows

Languages

English Proficient level **French** Intermediate level **German** Elementary level
Dutch Elementary level

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