

## Leadership Statement

### Vision on Leadership

My role as a leader is to synthesize the thoughts of the group into a common goal and vision, use that vision to obtain the required resources, and allocate them in a way that helps the group to achieve its goals. As a leader, I strive to bring out the best of everyone in the group. My aim is to understand everyone's strengths and motivations, and then try to assign responsibilities accordingly. I define clear roles and responsibilities and ensure that everyone knows their contribution to the decision-making process and the final goal. As a leader, I encourage everyone to voice their ideas and I believe that leadership also involves fairly assessing the quality of the ideas. Finding the right balance between the decisiveness to pursue a suitable course of action and including group members in the decision-making process is also a key issue. I generally aim to achieve consensus among group members. However, there are times when firm decisions are necessary for efficiency and clarity. As a leader, I also strive to build trust among group members by promoting transparency, fairness, and accountability. Leadership also constitutes the ability to resolve conflicts efficiently. I respect and encourage diversity, and endeavor to develop a positive working environment.

### Experience with Leadership Roles

#### Research

- I have supervised a number of international research publications [1, 2, 3, 4, 5, 6, 7].
- I have written review articles on fairness in machine learning [8] and fairness in reinforcement learning [9]. In particular, our article on fairness in machine learning was one of the inaugural works arguing for an interdisciplinary approach to fairness-aware machine learning research and it continues to be used as reading material for related courses at a number of universities (e.g., [10, 11]).
- I will deliver a tutorial on fairness in reinforcement learning at the 15th Asian Conference on Machine Learning (ACML 2023).
- I have been invited to review articles at a number of conferences/journals including JMLR, Journal for General Philosophy of Science, ICML, NeurIPS (*Top Reviewer*), AISTATS, AAAI, ICLR, ACM Conference on Fairness, Accountability, and Transparency (FAccT). Moreover, I have been invited to the editorial board of Frontiers in Big Data.
- I have been invited to serve on the Program Committee for a number of conferences/workshops including UAI (*Top Program Committee Member*), ALT, IJCAI, ECML/PKDD, European Workshop on Reinforcement Learning, and Trustworthy NLP Workshop.
- I have been invited to serve as a session chair at ECML-PKDD.
- I have been invited for talks at various research institutes including DeepMind, Yahoo Research, Heidelberg University, and Indian Institute of Technology Madras.
- I have been on the assessment committee for 4 bachelor's projects and 2 master's theses on varied topics such as effective sampling methods in reinforcement learning, multivariate distributional regression techniques, bias mitigation preprocessing techniques, fairness preprocessing algorithms, and auditing recommender models for bias.

#### Other

- I was elected the Class Representative for all four semesters during my master's education. My primary responsibility in this role was to act as a liaison between my classmates and the faculty to ensure that the curriculum went ahead seamlessly. Additionally, I performed various responsibilities including resolving scheduling conflicts, representing my classmates in various educational and extracurricular activities, organizing a job fair for my fellow classmates, etc.
- During my master's education, I was the student head coordinator of the university's wellness and outreach initiative. My duties included caring for the general well-being of students and lending a helping hand to those who were in distress. As a student head coordinator, I helped many students,

especially those from underrepresented communities, and worked hard to give them a positive and welcoming experience in the university and in academia, in general.

- During my master’s education, I volunteered to tutor high school students from disadvantaged households.
- During my PhD, I mentored several interns, master’s students and junior PhD students.
- Currently at Eindhoven University of Technology (TU/e), I volunteered to brainstorm with the Diversity and Inclusion task force to make the university a safe and inclusive place.
- I am an Academic Coach for bachelor’s students from the Honors Academy at TU/e.
- I am also keen to organize fun and fruitful initiatives e.g., an internal (informal) peer-reviewing system, mimicking conference peer reviews, with the dual goal of helping to improve the latest research of colleagues and practicing providing high-quality reviews.

## Continual Improvement in Leadership Skills

My leadership and motivational abilities are highlighted in testimonies from colleagues and student evaluations (available in my UTQ dossier [↗](#)). I continually endeavor to improve my leadership abilities. Toward this objective, I have completed a number of leadership courses such as *Diversity, Inclusion, and Positive Learning Environment*, *Supervision of PhD Students*, *Powerful and Effective Communication Techniques*.

## References

- [1] Ronald Van den Broek, Rik Litjens, Tobias Sagis, Nina Verbeeke, and Pratik Gajane. Multi-armed bandits with generalized temporally-partitioned rewards. In *Sixteenth European Workshop on Reinforcement Learning*, 2023. URL <https://openreview.net/forum?id=BcYigwLruz>.
- [2] Rosa van Tuijn, Tianqin Lu, Emma Driesse, Koen Franken, Pratik Gajane, and Emilia Barakova. Weheart: A personalized recommendation device for physical activity encouragement and preventing “cold start” in cardiac rehabilitation. In *Human-Computer Interaction – INTERACT 2023*, pages 191–201, 2023.
- [3] Danil Provodin, Pratik Gajane, Mykola Pechenizkiy, and Maurits Kaptein. The impact of batch learning in stochastic linear bandits. In *2022 IEEE International Conference on Data Mining (ICDM)*, pages 1149–1154, 2022. doi: 10.1109/ICDM54844.2022.00146.
- [4] Dennis Collaris, Pratik Gajane, Joost Jorritsma, Jarke J. van Wijk, and Mykola Pechenizkiy. Lemon: Alternative sampling for more faithful explanation through local surrogate models. In *Advances in Intelligent Data Analysis XXI*, pages 77–90, 2023.
- [5] Jiong Li and Pratik Gajane. Curiosity-driven exploration in sparse-reward multi-agent reinforcement learning. In *Sixteenth European Workshop on Reinforcement Learning*, 2023.
- [6] 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*, 2021.
- [7] Danil Provodin, Pratik Gajane, Mykola Pechenizkiy, and Maurits Kaptein. An empirical evaluation of posterior sampling for constrained rl. In *the Reinforcement Learning for Real Life Workshop*, 2022.
- [8] Pratik Gajane and Mykola Pechenizkiy. On formalizing fairness in prediction with machine learning. *5th Workshop on Fairness, Accountability, and Transparency in Machine Learning (FAT/ML) 2018*, 2018.
- [9] Pratik Gajane, Akрати Saxena, Maryam Tavakol, George Fletcher, and Mykola Pechenizkiy. Survey on fair reinforcement learning: Theory and practice, 2022.
- [10] Wei Wei and James Landay. Lectures notes for fair, accountable, and transparent (facct) deep learning. Stanford University, 2020. URL <https://hci.stanford.edu/courses/cs335/2020/sp/lec1.pdf>.
- [11] Jesse Hoey. Lectures notes for cognitive science. University of Waterloo, 2022. URL <https://cs.uwaterloo.ca/~jhoey/teaching/cogsci600/schedule.html#>.