Dynamics in Algorithmic Recourse
Trustworthy Artificial Intelligence for Finance and Economics

Personal Details

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Expected graduation date	2025-09-15	—
Years in program	<1	—

Key words: Counterfactual Explanations, Algorithmic Recourse, Recourse Dynamics, Endogenous Shifts, Explainable AI

Letter of Support

As substantiated in more detail in my full letter of support (attached with this application), as Patrick's advisor, I am very happy to support his application to the AIES student track. Patrick is an eager student, with a pro-active enthusiasm to learn from others, and contribute himself to the learning progress of relevant communities. Getting him to present at AIES will be very valuable for receiving feedback on his current work, while I would more broadly be happy to receive the community's guidance on how to best navigate questions of ethics and responsibility in a project like his. In case of a positive outcome of this application, we are in a position to fully cover Patrick's costs, and thus will not lay any claim on the financial waivers. — Cynthia C. S. Liem

Personal Statement

As a first-year PhD student in Computer Science with a background in Finance and Economics, I was very happy to see that AIES offers a student track. I have worked on several projects during the first months of my PhD and while the one I hope to present at AIES is the most mature research project at this point, it is still very much a work-in-progress. I think that the question I pose about the dynamics in Algorithmic Recourse is an interesting, albeit still fairly broad and open one. Through my participation in AIES, I would hope to get feedback that helps me refine the research question. As experiments related to the question are now being carried out by a group of students under my supervision, the work can be expected to progress further until the actual AIES event. I therefore expect that I can share more experimental results that may be of interest to the broader community. AIES would also be an opportunity to discuss ideas for potential remedies to the issues this work highlights.

I also think that my broader PhD research agenda on the intersection of trustworthy AI and the social sciences should be of interest to the AIES community. Thanks to my academic background in Economics, Finance and Data Science as well my previous professional experience in Monetary Policy, I believe that I can contribute insights to a wide range of discussions revolving around the diverse set of topics relevant to AIES. It would be immensely helpful to learn from more experienced colleagues as well as fellow early-stage researchers, who are working on related research questions. At the main conference and the student event I expect to be exposed to new research ideas that I have not thought of myself, but that may well be highly relevant to my own research. I would even hope to potentially find opportunities for future collaborations.

This would be the first student program I have attended, although it is worth mentioning that in the past I have presented research at the European Central Bank (2019), Bank of England, IFABS (2021), NeurIPS (2021) and the Irving Fisher Committee on Central Bank Statistics (2022). More informations on this can be found in my resume. Since the main PhD research project that I would like to dicuss is still in its early stages, I have not submitted anything to the main track of AIES. I would hope that following my participation in the student track I can use the feedback to carry the work forward and submit it to the main track next year.