

Postdoctoral research positions in the area of simulation-based optimization

The research will design simulation-based optimization algorithms with a focus on algorithms suitable for high-dimensional problems that arise in the areas of urban mobility and supply chain. The work will be performed in Prof. Carolina Osorio's team, as part of the Scale AI Research Chair in Artificial Intelligence for Urban Mobility and Logistics, in the Department of Decision Sciences at HEC Montréal. Details on the scope of our past work can be found [here](#), including recent publications and some working papers. Potential affiliations for the postdoctoral candidates include the research centers of [CIRRELT](#) and [GERAD](#), as well as numerous career opportunities within the [Scale AI](#) ecosystem.

About the team.

Team members can be found [here](#). We combine academic backgrounds and interests in mathematics, computer science, operations research and transportation. The team is led by Osorio, who is a faculty at HEC Montreal and a Visiting Faculty at Google AI. We are passionate about designing models and algorithms that can tackle transportation and logistics problems at scale. Our work has been recognized by a variety of academic and broader impact awards, [detailed here](#).

Application process.

A Ph.D. with a strong background in mathematics, operations research, computer science, strong programming, and strong interest in transportation applications are required. Applicants are invited to submit: (i) a full CV, (ii) a copy of all their university-level transcripts, (iii) a short statement (at most 3 pages) describing why they want to work on this topic, what subtopics they would like to focus on (e.g., describe the first few papers they'd like to work on) and why they think they are qualified to do so; (iv) the names and contact details of three references (including graduate supervisors). If desired, applicants can include a copy of one of their scientific publications. All documents should be compiled into a single pdf file and sent to Osorio's HEC email with the subject "Postdoctoral Application".