

PhD positions in mathematical optimization and machine learning for retail

In the context of two recently funded projects we are looking for highly motivated candidates to join our research group. The positions are fully funded and at the level of PhD student. The applicants should have completed or be near to completing a MSc or equivalent in computer science, industrial engineering, mathematics or a related area and possess excellent skills in programming and optimization, in addition to comply with the requirements to join our PhD program in Industrial Engineering. For more information about the program please visit Concordia University's website https://www.concordia.ca/academics/graduate/industrial-engineering-phd.html.

One of the research projects involves the study of scheduling and staffing problems arising in the operation of retail stores. This is a joint project with an industrial partner where the student will have the opportunity to work with real data. The goal of this project is to design scalable models and algorithms capable of coping with large-sized problems and to leverage the access to historical data to perform future decisions.

The second project involves the design of omni-channel distribution networks and the use of mathematical optimization and machine learning to cope with large and difficult problem instances.

In both cases, the candidates are expected to integrate optimization and machine learning models and methods to design efficient, scalable and reliable decision support systems. The candidates are expected to join our group in Fall 2023.

For more information or any inquiries regarding the open positions, please feel free to send an e-mail to <u>claudio.contardo@concordia.ca</u>.

Claudio Contardo, PhD Associate Professor, Department of Mechanical, Industrial and Aerospace Engineering Gina Cody School of Engineering and Computer Science Concordia University E-mail: <u>claudio.contardo@concordia.ca</u>