ID: MSCA-2020-TGuns01

Title: Data Science + Combinatorial Optimisation

Abstract: At the VUB Data Lab we do research on state-of-the-art techniques that combine machine learning methods, including deep learning, with combinatorial optimisation techniques from Operations Research, Mixed Integer Programming and Constraint programming. The goal is to learn part of the problem specification, prices, demand, load, user preferences, etc from historic data, and to do the combinatorial optimisation over the learned models. This can further be improved by doing the learning using decision-focused learning and other hybrid prediction + optimisation techniques.

The VUB data lab invites interested candidates with expertise in constraint programming, combinatorial optimisation and mixed integer programming on one hand, and machine learning, preference learning, deep learning or causal inference on the other hand, ideally a combination thereof.

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To apply: https://www.vub.ac.be/en/european-liaison-office#apply-msca-if