

Name of project supervisor: J. Christopher Beck

Email of project supervisor: jcb@mie.utoronto.ca

Name of project: Hardware Accelerated Exact Optimization

Project Description: This project will develop techniques for using the Fujitsu Digital Annealer (DA) hardware for exactly solving hard combinatorial optimization problems. The student will work as part of a team of post-docs and graduate students to understand the best way that problems can be formulated for the DA, investigate hybridization of classical optimization techniques (e.g., mixed integer programming models) with the DA, and develop algorithms to jointly solve the models. A significant part of the project will be programming and so very strong coding skills and strong math skills are required.

Who should apply for this project: Mostly aimed at IND students, but MEC students with strong programming and interest are also encouraged.