Postdoc position at the University of Toronto

The Paramathics Group, Computer Science
Advisor: Maryam Mehri Dehnavi

A postdoc position on domain-specific compiler design is available in our research team at the Computer Science department at the University of Toronto.

The position involves the design of compilers and programming languages. Researchers with an interest in compiler development, compiler optimization, verification, and systems for parallel machine learning and scientific algorithms are encouraged to apply.

The project includes (1) contributing to different stages of domain-specific compiler design; (2) inventing compilers passes/schedules that encode the algorithms and computation patterns for automatic code transformation and code generation; (3) investigating compiler verification methods for verification of the optimizations and transformations; (4) building domain-specific languages; (5) investigating computation patterns in matrix methods and machine learning algorithms; (6) investigating real-world application of the developed tools.

Applicants must, at a minimum, have a PhD degree in Computer Science or a similar discipline. Candidates must have strong programming skills and solid background in compilers and programming languages. Experience with the LLVM compiler framework, polyhedral models, and verification is a plus. Preference is given to applicants with publications in well-known compilers, programming languages, and parallel computing venues.

The postdoc position can commence anytime before Fall 2020 and is for two years with possibility of extension.

To apply, please send your C.V. and along with three select publications to mmehride@cs.toronto.edu before January 30th, 2020.

More information at http://www.cs.toronto.edu/~mmehride/