

PhD position in Parameterized and Exact Algorithms with applications in biology and health.

There is a 4-year PhD position available at the TU Delft, supervised by Leo van Iersel (TU Delft), Leen Stougie (CWI) and in close collaboration with Steven Kelk (Maastricht University). This position is part of the NWO (Dutch Science Foundation) project OPTIMAL (Optimization for and with Machine Learning), see this document for more information on the project.

The position is on at least one of the following two specific topics within OPTIMAL.

The first topic concerns the use of Machine Learning within the Fixed-Parameter Tractability framework, in order to develop algorithms that provably return optimal solutions and have good running time on practical data sets. Such algorithms will, for example, be designed for problems in phylogenetics (reconstructing evolutionary histories).

The second topic concerns the use of Optimization techniques such as Integer Linear Optimization to find optimal solutions to machine learning problems. These algorithms will be applied, for example, to classification problems in the medical sciences.

Requirements

- An MSc degree in Applied Mathematics, Computer Science, Mathematics, Econometrics or Operations Research is required.
- Knowledge of combinatorial optimization and algorithms.
- Knowledge of or interest in machine learning.
- Ability to write mathematical proofs.
- Implementation skills.

Salary

The salaries and conditions of employment are governed by the Collective Labor Agreement for Dutch Universities.

How to apply.

Send a motivation letter, a CV, including the email addresses of two references, a grade transcript and a copy of your (draft) Master's thesis to l.j.j.v.iersel@gmail.com.

There is no deadline for applications. Applications will be processed in order of arrival. The position remains open until it is filled.