

PhD position – Generative AI for Complex Trait Genomics

We are looking for PhD candidates with backgrounds in computer science, machine learning, statistics, bioinformatics or computational biology to develop generative AI models for complex trait genomics.

The position is part of a 5-year project, “An interpretable framework for complex trait genomics using deep generative models,” funded by the Estonian Research Council. The PhD candidate will be supervised by Dr. Burak Yelmen (University of Tartu, Institute of Genomics) and Dr. Flora Jay (Paris-Saclay University, CNRS, Inria, LISN). Ideal candidates should at least have:

- A basic understanding of statistics and/or machine learning theory
- Coding/scripting experience, preferably in Python

Background and experience with omics data is useful but not required.

Location and resources

The PhD candidate will be based at the University of Tartu, Institute of Genomics (starting from September 2026, regular duration for PhD studies is 4 years), with opportunities to visit Paris-Saclay University. The Estonian Biobank, hosted at the Institute of Genomics, is among the most comprehensive biobanks worldwide and includes genetic data linked to electronic health records for more than 200,000 participants (approximately 20% of Estonia’s adult population). More information about the institute and the biobank is available at <https://genomics.ut.ee/en>. Details about the university’s high-performance computing (HPC) resources can be found at <https://hpc.ut.ee>.

Tartu is Estonia’s second-largest city and home to the University of Tartu, the country’s oldest and largest university. General information about the city is available at <https://tartu.ee/en>.

Some details about the project can be found at <https://www.etis.ee/Portal/Projects/Display/2aba7fdf-b8c2-46fb-8175-2c0546088165>.

How to apply

Interested candidates should email burak.yelmen@ut.ee with:

- A CV
- A short motivation letter
- Names and email addresses of 1–3 referees

Please don’t hesitate to contact with any questions about the position.