



UNIVERSITY
OF WARSAW

Faculty of Mathematics, Informatics and Mechanics
Institute of Informatics

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PhD Position in Computational Oncology and Machine Learning

Position: We invite applications for a PhD position in a Polish National Science Centre-funded project called TUMORMAP (Sonata Bis grant).

Requirements: The candidate is expected to have

- A Master's degree in computer science, mathematics, bioinformatics, or physics, either at the time point of the application or expected end of this semester.
- Excellent mathematical and computational background.
- Experience in programming.
- Interest in applications in healthcare/medicine, in particular oncology.
- Fluency in English.
- Good writing and presentation skills.
- Being accepted and enrolled to a Doctoral School at the University of Warsaw.

We will require a solid background in probabilistic graphical models, Bayesian statistics and machine learning.

Project outline:

The problem that will be solved in this project is the development of advanced computational methods for quantitative and immunotherapy-informative analysis of tumor subclones and their microenvironment in ultra-high molecular and spatial resolution. The proposed approach is based on integrative machine learning and probabilistic modeling of imaging and molecular profiling of tumors.

Our methods are usually based on probabilistic graphical models, Bayesian Networks, Bayesian statistics, or deep learning, with current focus on generative models, in particular generative variational autoencoders.

Application deadline: 01 January 2022, 00:00

How to apply:

Please send your applications per email to szczurek@mimuw.edu.pl, including

- CV
- Recommendation contact (we are likely to contact your Referee).

Selected candidates will be invited for an interview. During the interview, the selected candidates will be asked to give a 10 min presentation of their recent research project (can be their Master's thesis).

Engagement conditions:

Maximum project duration: 23 months

Type of position: research scholarship

Position: doctoral student

Start of position: 01.02.2023

Location: institute of Informatics, Faculty of Mathematics, Informatics and Mechanics at the University of Warsaw

Scholarship: 3000 PLN monthly

Work environment: lively, friendly and interdisciplinary research group:

<https://www.mimuw.edu.pl/~szczurek/people.html>

And a supportive PI: <https://www.mimuw.edu.pl/~szczurek/>