



UNIVERSITY
OF WARSAW

Faculty of Mathematics, Informatics and Mechanics

Scholarship for a M.Sc. student in single-cell bioinformatics

in a research project "Integrative analysis of single-cell genomics data" funded by the National Science Centre, Poland (SONATA, 2020/39/D/NZ2/03461).

Description of the project:

Genetic information manifests itself in the process of gene expression, by which DNA sequences of individual genes are decoded into functional products, such as proteins. This process has been extensively studied by DNA and RNA sequencing. However, these traditional sequencing methods could only obtain the average signal over multiple cells, losing the information on cellular heterogeneity. This has recently changed with the development of single-cell technologies, which are capable of sequencing a single-cell genome or transcriptome, thus revealing cell population differences and allowing for distinguishing rare cell types. In this project, we will computationally integrate data from both single-cell and population-level methods for a more comprehensive understanding of gene expression mechanisms.

We offer:

- challenging research problems,
- tax-exempt scholarship of 1,500 PLN per month,
- initial contract for 6 months with possibility of extension up to 18 months.

Requirements:

- M.Sc. student status in exact or natural sciences (computer science, bioinformatics, mathematics, physics and related fields),
- interest in tackling biological problems using computational methods,
- good programming skills in R or Python,
- coursework or experience in analyzing next generation sequencing data.

The project is led by Aleksander Jankowski (www.mimuw.edu.pl/~ajank/), who can be contacted for more information. Please apply by sending your CV, transcript of grades and a cover letter to ajank@mimuw.edu.pl. Application deadline: December 12, 2021.

The applications will be evaluated by a selection committee appointed by the Dean of the Faculty of Mathematics, Informatics and Mechanics, University of Warsaw. The committee will recommend no more than two candidates by December 20, 2021.