Institute Euler

PhD student position at the Institute Euler, Faculty of Biomedicine at USI Università della Svizzera italiana

Università della Svizzera italiana (USI) is a young and lively university, a hub of opportunity open to the world where students are offered a quality interdisciplinary education in which they can be fully engaged and take center stage, and where our researchers can count on having the space to freely pursue their initiative.
Established in 1996, USI is in constant evolution, always taking on new challenges while remaining true to its three guiding principles: quality, openness and responsibility.

The Euler Institute is USI's central node for interdisciplinary research and the connection between exact sciences and life sciences. By fostering interdisciplinary cooperations in Life Sciences, Medicine, Physics, Mathematics, and Quantitative Methods, Euler provides the basis for truly interdisciplinary research in Ticino. The Euler Institute connects artificial intelligence, scientific computing and mathematics to medicine, biology, life sciences, and natural sciences and aims at integrating these activities for the Italian speaking part of Switzerland.

The Institute invites applications for a research and teaching PhD position (100%, 4 years). The PhD candidate will develop his or her dissertation project within the field of Computational Biomedicine.

The project
We are looking for a PhD candidate to work in the areas of machine learning, and protein modeling and design. Research objectives include the development and implementation of deep generative models for protein design with applications in the fields of antibody therapeutics and biosensor design.

The Ph.D. Position
The doctoral student will be enrolled in the Computational Biomedicine. The doctoral student will work under the scientific supervision of Prof. Thomas Lemmin. The successful candidate will be offered the possibility to work in a dynamic research team and in a multidisciplinary and international scientific environment.

The PhD candidate will collaborate to the development of the institute research agenda. She or he will have the task of setting up a collection of data for his or her dissertation, while at the same time participating in a variety of tasks related to the research streams in which he/she is involved.

On the teaching side, she/he will work as teaching assistant in courses at either bachelor or master level, helping in the preparation of teaching materials and tutoring students.

The PhD candidate is also asked to present papers at scientific conferences, and produce publications for scientific journals.

Candidates' profile
You are a highly motivated individual capable of grasping and applying new concepts, working individually, and collaborating with multidisciplinary research teams.
- Master of Science (MSc) degree
- Interest in Machine Learning and/or Computational Biology. Proficiency in Deep Learning and Molecular Modeling are a plus.
- Good skills in oral and written English (official language of the Ph.D. program)
- Ability to work independently and to plan and direct own work
- Motivation to engage in the elaboration of a PhD dissertation. Ability to work in team and autonomy in scheduling research steps. Interest for teaching and tutoring students and availability to collaborate with colleagues (engage in scientific dialogue, listen and think critically) are required.

Contract terms
Admission to the Ph.D. program is highly competitive. Admission decisions are based on the candidate's background, interests, attitude and potential for academic achievement. Successful enrolment in the Ph.D. program and the position as doctoral researcher are not compatible with a further professional activity.

The successful candidates will work as research assistants at the Institute Euler, and will have the possibility to interact with an international network of collaborators.

Workplace is USI Università della Svizzera italiana, located in Lugano, Switzerland. Availability to travel to other parts of Switzerland and abroad (for purposes of collaboration and research) is required.

Starting date is September 1, 2021. However, the position will be kept open until a suitable candidate has been found.

The Application
Applications should contain: (1) a letter in which the applicants describe their research interests and the motivation to apply, (2) a complete CV, (3) copies of relevant diplomas, certificates as well as the full transcript of records, (4) an electronic version of a research work (Master thesis or other scientific publication).
The latter must be accompanied by a short summary in English (1 page maximum). A support letter written by the Master thesis supervisor (or another Professor who knows the candidate well) is equally welcome.

Please send your application in electronic form or requests for further information to thomas.lemmin@inf.ethz.ch.

Applications received before August 1, 2021, will be given priority. However, applications will be received until the position is filled.

As an institution that values diversity, USI particularly encourages applications from women and from all individuals from underrepresented groups.

Lugano, June 17, 2021