

## SUPSI

# PhD Student in Machine Learning for Optimization problems

The University of Applied Sciences and Arts of Southern Switzerland (SUPSI), active in the fields of natural and built environment, economics, technological innovation, applied art, social work and healthcare, learning and education, has opened a position at the **Dalle Molle Institute for Artificial Intelligence (IDSIA)**, for a **PhD Student in the area of Machine Learning for Optimization problems**. The occupancy degree is 100% and the contract is for a three-year position with possibility of prolongation.

### Duties

- Research work on the application of state-of-the-art Machine Learning and Deep Learning techniques to Optimization problems.
- Development of methods in the fast-evolving field of Machine/Deep Learning for applications in the field of stochastic optimization for real logistic problems. In both fields, the institute holds a certified experience and is active on several projects already. In particular, applications of interest are in the integration of Machine Learning, Monte Carlo sampling and metaheuristic algorithms for logistics problems affected by uncertainty.
- The student will have a significant freedom to explore these topics and will be closely supervised by prominent researchers in the areas.

### Requirements

#### *Essential*

- Master degree with full honors, preferably in Applied Mathematics and/or Computer Science, or alternatively in a quantitative faculty such as engineering, statistics or similar.
- Excellent programming skills.
- Excellent scientific writing skills.
- Excellent background in Machine Learning and Deep Learning.
- Excellent background in Combinatorial Optimization and Operations Research. Excellent knowledge of English, spoken and written. Good knowledge of Italian.

#### *Desirable*

- Documentable experience with the scientific Python ecosystem.
- Documentable experience in the use of Mathematical Programming libraries.
- Autonomy as well as ability to work in a group.

### We offer

- A three years contract with possibility of prolongation. The occupancy degree is 100%.
- Attractive salary, in line with Swiss standards.
- International working environment.

### Additional information

The requirements for this function are published within the "Direttive interne SUPSI" (direttiva 7a) and within "Regolamento del personale SUPSI" on the website [www.supsi.ch](http://www.supsi.ch) (follow SUPSI, Documenti ufficiali).

For further information please contact:

**Prof. Roberto Montemanni**

Applicants should submit the following documents, written in English:

1. Curriculum vitae with attachments.
2. List of three references (with e-mail addresses).
3. Letter of motivation
4. List of taken bachelor and master's exams taken with grades.

They will be considered only applications submitted electronically in English address submitted within **November 11<sup>th</sup> 2018** through the **appropriate form** or through our **website**. Applications which are incomplete or sent after the deadline will not be considered.