

**Date of publication of the job offer: November 18, 2020**

**Job Offer: Machine Learning position available at the Computational Science Lab**

**Job Description:**

Universitat Pompeu Fabra <http://www.upf.edu> and Prof. Gianni De Fabritiis, ICREA research professor <https://es.linkedin.com/in/gdefabritiis>, are looking to recruit a PhD student for a PhD on AI. Lab website: <http://www.compscience.org/>

Relevant References: [https://scholar.google.es/citations?hl=en&user=-\\_kX4kMAAAAJ&view\\_op=list\\_works&sortby=pubdate](https://scholar.google.es/citations?hl=en&user=-_kX4kMAAAAJ&view_op=list_works&sortby=pubdate)

This project aims to develop large scale artificial neural networks for machine intelligence applied to structural and computational biology. The aim is to go substantially beyond the state-of-the-art, exploring local update learning rules, unsupervised and reinforcement learning approaches.

By working in this project, the researcher will have access to state of the art computational project like GPUGRID.net and large amounts of molecular simulation data, which will be crucial for the development and validation of novel computational protocols. This project is expected to lead to discoveries that will be publishable in the highest impact scientific journals.

**Methods:** Modern deep learning approaches such as convolutional, recurrent neural networks, as well as generative models such as variational autoencoders and generative adversarial networks are some examples of the models we currently use.

**Project and Institution that finance the contract :** The work is supported with H2020 European Commission Funds, by grant H2020-CompBioMed2-Gianni de Fabritiis

**Official number reference:** PREUR00419 - H2020-CompBioMed2-Gianni de Fabritiis

**Skills and Experience**

The candidate will preferably have a profile in statistics, chemistry, medicinal chemistry or mathematics. Requirements. Very good communication skills in English. Previous exposure to machine-learning pipelines, Python proficiency, familiarity with Linux and the ability to work with version control systems (e.g. git).

**Benefits of the opening** The successful candidate will be offered a part-time contract, with an annual gross salary around 19-20.000 EUR, commensurable with experience, with the possibility for an extension. Very good computational infrastructure.

**Information on the application process:**

Send CV to [carina.oliver@upf.edu](mailto:carina.oliver@upf.edu) (Ref. C2\_GdF)

**Deadline to submit applications Dec 4, 2020**