



Universitat  
Pompeu Fabra  
Barcelona

Departament  
de Ciències Experimentals  
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**Date of publication of the job offer: June 14<sup>th</sup> 2019**

**Job Offer** - Postdoctoral Position on reinforcement and continual learning at the Computational Science Group

### **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 postdoctoral scientist mainly on the topic of applying machine learning and reinforced learning.

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)

**Aim:** This project aims to develop methods and applications that are transformative in the field of artificial intelligence by focusing on solving AI agent-based challenges (e.g. Unity 3D environments, but not only). The results are expected to be publishable in the highest impact scientific journals. There will be ample opportunities to present his/her work at international meetings and conferences.

The computational science laboratory, led by Gianni De Fabritiis has been successfully applying deep learning approaches on fundamental problems in these areas, such as protein-ligand docking, affinity prediction and protein folding winning several international challenges. Currently, we are focused in developing intelligent agents that can outperform human on specific problems.

### **Project and Institution that finance the contract**

The work is supported by grant: Combiomed 2 (A Centre of Excellence in Computational Biomedicine, Dr. Gianni de Fabritiis) from European Commission – H2020

### **Skills and Experience**

- The candidate will preferably have a profile in computer science, physics or mathematics. However, we seek exceptional candidates with a passion for computing, the capability to think out of the box, the ambition to work in very innovative projects more than specific profiles.
- The capability to think out of the box, the ambition to work in very innovative



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projects and very good communication skills in English.

- Previous experience in reinforcement learning and related fields, Python proficiency and coding skills, knowledge of Tensorflow or pytorch, familiarity with Linux and the ability to work with version control systems (e.g. git) are required.

### Benefits of the opening

We offer a one-year contract with possibility of extension, with competitive salary (around 30k gross salary), starting on January 2020.

Location: The laboratory is located in the Barcelona Biomedical Research Park which, with a privileged location on the shoreline of the Mediterranean sea, constitutes one of the most exciting interdisciplinary research centres in Southern Europe with more than 1000 scientists in the building alone.

Facilities: Access to state of the art computational resources and large amount of simulation data, which will be crucial for the development and validation of novel computational protocols. The lab is equipped with a cluster with 60 GPUs and has exclusive access to GPUGRID.net, a distributed computing project with 5000 GPUs.

### Information on the application process:

Please send an email to [gianni.defabritiis@upf.edu](mailto:gianni.defabritiis@upf.edu) with subject "JOB PD2" with a CV and a cover letter together with the names of up to three contacts for requesting recommendations

**Deadline to submit applications** – July 31<sup>st</sup> 2019