

ARAMIS LAB Paris Brain Institute (ICM) CNRS UMR 7225 - Inserm U1127 Inria - Paris Research Center www.aramislab.fr

JOB OFFER

Full-stack developer Web application for brain image analysis

Keywords: Python, neuroimaging, image analysis, medical imaging

The topic: Clinica – Open Source software for brain image analysis

The ARAMIS lab develops the Open Source software Clinica (www.clinica.run) for brain image analysis. Clinica allows users to easily analyze large-scale clinical studies with advanced computational tools. To that purpose, it integrates tools for data management, image preprocessing, feature extraction, machine learning and statistics. Clinica is distributed freely to the scientific community and has 400+ users worldwide. It has been used to produce high impact medical publications which have advanced the understanding of neurodegenerative diseases such as Alzheimer's disease, fronto-temporal dementia and amyotrophic lateral sclerosis. It is also widely used by researchers who apply machine learning to the diagnosis of brain diseases.

Clinica is currently downloaded and executed by the users on local computers. We now aim to make it available as a web service. The software will be used through a web application, the users will upload their data which will be processed by running Clinica on a cloud service.

Your mission

You will be in charge of developing and deploying the web service ClinicaCloud. More specifically, you will be in charge of:

- development of the front-end module (web server, user interface)
- development of the back-end module (development of an API for interacting with Clinica)
- deployment of the beta release of the platform
- evaluate the initial release of the platform: collect, interpret and analyse user feedback
- documentation writing and maintenance
- user support

In addition, you will be involved in presenting the software at international scientific conferences and other events (organized for instance by Inria, ICM, CNRS...).













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A vibrant scientific, technological and clinical environment

You will work within the ARAMIS lab (www.aramislab.fr) at the Paris Brain Institute (http://www.icminstitute.org), one of the world top research institutes for neurosciences. The institute is ideally located at the heart of the Pitié-Salpêtrière hospital, downtown Paris.

The ARAMIS lab, which is also part of Inria (the French National Institute for Research in Digital Science and Technology), is dedicated to the development of new computational approaches for the analysis of large neuroimaging and clinical data sets.

You will interact locally with the PhD students, postdoctoral fellows and engineers of the ARAMIS lab, as well as our medical collaborators. You will take part in the communications and publications resulting from the use of the software.

Your profile

- Bachelor, Master or Engineering degree
- Strong programming in Javascript/HTML (for instance Node.JS, Ionic, Angular, React...)
- Basic knowledge of Python
- Basic knowledge of a framework for web servers (Django/Flask)
- An experience in the deployment of web apps using a cloud service (Heroku, Azure, AWS, GCP) would be a plus.
- Demonstrated software integration skills.
- Good writing skills (software documentation)
- Good relational and communication skills to interact with users and lab members

Salary: depending on experience Type of contract: fixed-term contract

Ready to take up the challenge?

Send your CV to olivier.colliot@sorbonne-universite.fr and to ninon.burgos@icm-institute.org.









