



JOB OFFER

Software developer

@ INRIA / Brain and Spine Institute (ICM), Paris, France

www.aramislab.fr

We offer a 2-year position as software developer in the ARAMIS team. We are looking for a highly motivated engineer to be involved in the development of front-end analysis pipelines for multimodal neuroimaging data.

The team: data science in neurology and neurosciences

The research team ARAMIS develops next generation methods for neuroimaging data analytics and modeling. Our expertise lies at the crossroad of statistical learning, 3D modeling, image and signal processing. Our methods are designed to extract relevant information from large data sets in order to gain understanding about the structure and function of the human brain. In particular, we are interested in developing data analytics methods to discover the mechanisms of neurological pathologies that will drive the development of new treatments.

The ARAMIS team is part of INRIA, the National Institute of Computer Science, and of the Brain and Spine Institute (ICM), one of the top European research institute in neurosciences, which is ideally located at the heart of the Pitié-Salpêtrière hospital, downtown Paris. The members of the team ARAMIS include researchers with background in computer science and applied mathematics. The team has strong and enduring collaborations with clinical partners in the neurological, neurosurgical, and neuro-radiological departments of the hospital.

Your mission: develop software system for clinical studies

Your mission within the team will be to develop a software system that integrates in-house software with third-party components in order to use them routinely in clinical studies.

The research activities of the team have led to a series of software, including notably the software Deformetrica (www.deformetrica.org), for the analysis of 3D brain images and signals and 3D meshes extracted from these data. To be used routinely in neuroimaging studies, these software need to be included into a software system, which combines them with third-party components and allows the definition and execution of complex processing pipelines. You will be responsible to the design and development of the different aspects of this software system including its coupling with a data management system, the development of maintainable and robust processing pipelines, the generation of 3D scenes for visualization, the re-definition of the I/O of in-house software and the optimization of their memory footprint and runtime. You will use real clinical data sets to test and evaluate your system.

Your profile: talented software developer

You have a strong expertise in:

- Software architecture
- The languages C++, Python and Matlab,
- The use of tools for continuous integration, profiling and distributed computing,
- 3D visualization,
- Data management



You have a master degree in computer science, data science or related field. You are problem-solver, result oriented, and passionate about learning.

Practical info:

- targeted hiring date: October 1st, 2015 (negotiable)
- duration: 2 years
- salary: 2530€ per month + benefits

Ready to go? Please send your resume and a (very) few lines explaining why you think you fit for the job to Stanley.Durrleman@inria.fr and Olivier.Colliot@upmc.fr