barcelonaβeta
BRAIN RESEARCH CENTER

Research Engineer in Neuroimaging for the Barcelonaβeta Brain Research Center

About the employer

The Barcelonaβeta Brain Research Center (BBRC) is a new research center, constituted by the Pasqual Maragall Foundation. The goal of BBRC is to become an internationally recognized centre of excellence in our understanding of age-related cognitive disability in order to provide practical solutions to the global challenges posed by the world's aging population. Our goal will be achieved by championing primary and secondary prevention programs for Alzheimer's disease and other related neurodegenerative disorders, the study and promotion of healthy aging, and the research of the basic physiological mechanisms of cognitive functions affected by healthy or pathological aging such as memory, learning and decision-making, among others. The vision of BBRC is to provide the society with distinct and innovative solutions for age-related cognitive disability by leveraging these complementary research programs in order to attain a multidisciplinary comprehension of the aging process and the pathophysiology of neurodegeneration.

Pasqual Maragall Foundation, Pompeu Fabra University and "la Caixa" on are permanent members of the BBRC Board. International competitive recruitment, state-of-the-art scientific facilities, effective management and continuous high-standard peer-review evaluation are the BBRC core proceedings to ensure achieving world-class research results. BBRC is affiliated and located in the Campus Ciutadella of the Barcelona Pompeu Fabra University, the building contains excellent technical facilities, including a research-dedicated 3T MR scanner, Clinical Trials facilities, EEG and Eye Tracker labs.

BBRC is also part of the Barcelona Biomedical Research Park (PRBB), a large research facility that hosts other seven different research institutions related to biomedical research, including the Center for Genomic Regulation (CRG), the Hospital del Mar Medical Research Institute (IMIM), the Department of Experimental and Health Sciences of the Pompeu Fabra University (CEXS-UPF), the Institute of Evolutionary Biology (IBE CSIC-UPF), the Barcelona Institute of Global Health (ISGlobal) and the Barcelona site of the European Molecular Biology Laboratory (EMBL), among others, in a multidisciplinary, collaborative and stimulating international environment in close contact with a clinical setting, thus conducive to translational research.

For more information see: www.fpmaragall.org and www.barcelonabeta.org

About the job

The BBRC is recruiting a Research Engineer in Neuroimaging. This is a full-time position and the selected candidate selected will join the AD Prevention Program.

The Research Engineer will report to the Scientific Coordinator of the Neuroimaging Platform. To support its research activities, the BBRC has developed an infrastructure to carry out complex workflows for the daily storage, management, control, processing and sharing of large volumes of neuroimaging data.

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This platform holds a central role to BBRC's research tasks by automating processes and providing researchers with a variety of user-tailored tools. In this context the Research Engineer will work at the interface between the research team and the group in charge of expanding this infrastructure.

Main Responsibilities

The Research Engineer's responsibilities will include, but are not limited to:

- Take part in the development of the BBRC's infrastructure for the processing of large neuroimaging datasets, to improve related processes and systems
- Provide support to the research group by carrying out analysis workflows involving multimodal neuroimaging data
- Develop new tools, implement state-of-the-art technology based on researchers' needs and contribute to the maintenance of the in-house toolkit.
- Design and implement strategies for large-scale controls on integrity and quality of neuroimaging data
- Assist with the preparation of scientific reports and publications.
- Monitor latest technological advances in research data management and show capacity to build concept prototypes.
- The successful candidate will need to develop a good understanding of neuroimaging methods used in the various research lines of the AD Prevention Program.

Required qualifications and professional experience

- B.A., B.S. or equivalent with a background in computer science, engineering or related fields. Masters or PhD degree preferred but not required.
- Fluent in English (working language in BBRC)
- Passionate about programming and technology.
- Quantitative and proficient programming skills, in particular in Python and Matlab, with diverse computing environments required
- Strong background in data engineering and scientific computing
- Experienced with *nix-based system administration
- Knowledge of git-based version control systems
- Experience with neuroimaging and databases is a plus.

Personal skills

- Self-initiative
- Highly responsive and accountable
- Strong appetite for problem solving
- Concerned about quality and good practices in software development
- Comfortable with a multidisciplinary team and with a heterogeneous and evolving environment

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- Ability to think independently and work collaboratively (empathic and focused team- worker).
- Organizational skills: ability to initiate, manage and direct multiple tasks and projects is necessary.
- Demonstrate strong written and verbal communication (good ability to explain concepts)
- Strong interpersonal skills and a high level of organization with careful attention to detail are absolutely required. This position requires a high degree of motivation and self-sufficiency, although extensive training and supervision will be provided.
- Interest in joining a non-profit organization with a mission of high social impact.

Candidates are encouraged to apply even without all the skills, but they should show a strong motivation to acquire them.

We offer

- Full-time position.
- Salary will be in accordance with qualifications and experience.

We offer work in a highly stimulating team, and BBRC offers and promotes a diverse and inclusive environment. In the foundation we also care about developing your professional career so you will participate in internal and specific training for your job, promotion opportunities and development of your professional career. We evaluate the potential of our team in order to develop those skills necessary to achieve a high level of professional performance.

Application process

To apply, please submit a single PDF file containing the following:
1) Cover letter describing research interests and relevant background;
2) CV
3) The names of up to three individuals who could provide reference letters. All files or inquiries should be submitted electronically to: rh@barcelonabeta.org

Subject: Research Engineer in Neuroimaging

Deadline: 10th of July

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We inform you that your personal data will be part of a file which Pasqual Maragall Foundation and Barcelonaβeta Brain Research Center is responsible for, in order to manage the job offer you have requested. Once the process is complete, the data processed will be erased.

You have the right to exercise the rights of access, rectification, cancellation and opposition recognized in Regulation (EU) 2016/679 (General Data Protection Regulation), to be addressed to the Pasqual Maragall Foundation and Barcelonaβeta Brain Research Center: c/ Wellington 30, 08005 Barcelona.

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