

<b>Position Title:</b> Software engineer – Brain imaging research	<b>Date Prepared:</b> 1 September 2021
<b>Position Reports To:</b> Head, Epilepsy Neuroinformatics	<b>Theme/Team:</b> Neuroimaging & Neural Networks
<b>Classification:</b> RA2 -6 ( \$70,213 - \$83,974) + oncosts and generous salary packaging	<b>Location:</b> MBC , Heidelberg
<b>Key Relationships:</b> <u>Internal:</u> <ul style="list-style-type: none"> <li>• Senior researchers on the Australian Epilepsy Project</li> <li>• Florey IT staff</li> </ul> <u>External:</u> <ul style="list-style-type: none"> <li>• High-performance computing and storage platforms/service providers</li> <li>• Australian Epilepsy Project data collection hubs</li> </ul>	<b>Primary Purpose:</b> As Software engineer within the brain imaging research team, the candidate will work with brain research scientists to further the development, implementation and maintenance of research software for data management, processing, analysis and display. The role will contribute to research activities, including development of novel algorithms and publication of open-source software and data. The focus of the role is to support the Australian Epilepsy Project ( <a href="http://www.epilepsyproject.org.au">www.epilepsyproject.org.au</a> )
<b>Primary Responsibilities:</b> <ul style="list-style-type: none"> <li>• Implement and further develop algorithms for data processing (including acquisition, pre-processing, analysis and display) that are most appropriate for our current research</li> <li>• Review, enhance and extend our existing neuroimaging software analysis and database platforms, resolving existing identified issues and shortcomings</li> <li>• Provide programming assistance to extend and link existing research databases</li> <li>• Lead the development of highly automated, containerised processing pipelines and workflows</li> <li>• Provide supervision and training of the use of advanced software (including in-house and externally developed software) to staff and students</li> <li>• Assist with programming of presentation paradigms for functional imaging research projects</li> <li>• Attend team research and other meetings as appropriate</li> </ul>	

<p><b>Skills/Qualifications:</b></p> <ul style="list-style-type: none"> <li>• Graduate qualification or equivalent experience in a relevant discipline such as physics, engineering, computer science, mathematics, statistics or software engineering.</li> <li>• Strong computer programming skills</li> </ul>	<p><b>Workplace Culture and Occupational Health &amp; Safety:</b></p> <ul style="list-style-type: none"> <li>• Florey staff support the collective vision and mission of the Florey through open and collaborative communication that promotes positive and respectful relationships fostering and supporting innovation</li> <li>• Excellence in practice is driven by a focus on equity, diversity and inclusivity</li> <li>• The Florey OH&amp;S policy and procedures are designed to ensure the Florey is a safe workplace. Florey employees continually incorporate and support improvement of the management of OH&amp;S practices for Florey related activities</li> <li>• Staff are supported to create and promote a positive and equitable workplace through awareness of issues that impact on health and wellbeing</li> </ul>
<p><b>Experience/Knowledge:</b></p> <p>Any of the following would be advantageous:</p> <ul style="list-style-type: none"> <li>• Honours degree and/or postgraduate degree</li> <li>• Experience with any of C++, MATLAB, Python, R, REDCap, Git</li> <li>• Experience in high-performance computing and cloud computing</li> <li>• Experience in GNU/Linux system administration</li> <li>• Experience in brain image analysis, especially MRI &amp; functional MRI, including pre-processing, statistical analysis and visualisation</li> <li>• Experience in analysis of electroencephalography (EEG) data</li> <li>• Experience in analysis of large multi-subject, multi-modality datasets</li> <li>• Experience in developing and applying machine-learning and model-based algorithms for data analysis</li> <li>• Experience in development of clinical decision support tools</li> <li>• An understanding of the physics of MRI acquisition</li> </ul>	<p><b>General Attributes:</b></p> <ul style="list-style-type: none"> <li>• Positive 'can do' attitude</li> <li>• Excellent written and verbal communication skills</li> <li>• Demonstrates initiative and continuous development of skills</li> <li>• Ability to work collaboratively as part of a team</li> <li>• Accuracy and attention to detail</li> <li>• Strong time management skills</li> </ul>