CHILDREN'S MEDICAL RESEARCH INSTITUTE

Jeans for Genes®

Finding cures for children's genetic diseases

Software Engineer – Product Development

- **Make an important contribution to the health of future generations through medical research**
- **Work with a world-leading, independent medical research institute**
- **Located in Westmead—Sydney's and Australia's foremost biomedical research precinct**

Children's Medical Research Institute (CMRI) was Australia's first dedicated paediatric research facility and is now one of the world's most highly regarded independent medical research organisations. Our research focuses on the four key areas impacting children's health: cancer, genomics and genetic diseases, neurobiology, and embryology. Our strong international reputation is based on decades of significant research outcomes in these areas of specialty. CMRI is also home to the world-first proteomics project, ProCan, which is changing the way cancer is diagnosed and treated. CMRI's research programs are supported by state of the art facilities and committed research and support staff. Our achievements are made possible by a loyal network of community supporters, highly engaged donors, and the very successful Jeans for Genes® and Great Cycle Challenge fundraising campaigns.

Functional Neuromics
Our Functional Neuromics team is led by Professor Sandra Cooper, an authority on clinical interpretation of genetic splicing variants. Our team has developed a suite of novel genomics tools to that can assist genetic pathology workforces to identify and classify DNA variants that cause genetic disorders. Our vision is to build a suite of products that enable rapid and accurate genetic diagnosis with an aim to be a world leader in our subject area.

Overarching goal for this role:
To transform our beta version of a cutting-edge, machine-learning genomics tool, into a consumer-friendly, Software-as-a-Service Medical Device for commercialisation.

Be part of the team:
Our back-end functionality is impressing clinical users and we are rapidly advancing towards commercialisation. We now need a Full Stack Software Engineer to manage the software development life cycle for a broad range of web-based SaaS products focused on analysing genomics data and genetic mutations. Reporting to our Technology lead, you will work closely with scientists and bioinformaticians to transform our concepts and prototype products into a robust, user friendly, secure web-based SaaS Medical Device.

You will be a mid to senior-level Engineer (ideally 3+ years commercial experience), capable of independently making technical and architectural decisions during the software development lifecycle. You are a curious individual, eager to develop new skills and work comfortably with a diverse technical team with vastly different backgrounds.

Ideal Candidate will have:

- Bachelors Degree in Engineering, Information Technology or field relevant to Software design.
- Experience in managing end to end software development lifecycle i.e. design, build, deployment & maintenance.
- Proficient in Python, JavaScript, NodeJS, VueJS, HTML, S/CSS
- Extensive experience working in cloud environments (GCP preferable, however we are open to others).
- Expertise in the design, development and delivery of automated solutions.
- Experience in CI/CD, TDD and secure coding practices.
- Experience in development of web based applications and backend API services including testing, environment management, deployment and clear operational documentation.
- Knowledge of common data structures and algorithmic solutions.

Experience in data modelling and machine learning including building, evaluating, and deploying production grade models will be highly regarded. Similarly experience with Scikit-learn, Tensorflow and/or PyTorch and any experience working with genomics data will be an advantage.

Our team members have joint roles at CMRI and Kids Neuroscience Centre (KNC) at the Children's Hospital at Westmead. We prioritise a person-centric workplace and welcome diversity in our team. We're a closely knit team of individuals who strive for excellence, embrace critical thinking and are shifting the dial in diagnosing genetic diseases. If you think your Software Engineering skills can add value to our mission, please apply below.

You will be provided with a competitive remuneration package in accordance with qualifications and experience. Additional benefits include the provision of a Public Benevolent Institution salary packaging scheme and participation in an employer-contributed superannuation fund. This role has opportunities to work from home and a flexible contract. This role is expected to take 6 – 12 months and may be full-time or part-time (from 16 to 38 hours per week), dependent on your needs.

Applications should include a cover letter (citing PV2239), curriculum vitae and contact details (phone/email) of three professional referees and be forwarded to recruitment@cmri.org.au

Closing date for applications is **30.11.2022.**

Please direct enquiries regarding the position to Professor Sandra Cooper, Research Scientist, sandra.cooper@sydney.edu.au