

Software Engineer Candidate Information

December 2024

The Institute of Cancer Research

About our organisation

We are one of the world's most influential cancer research institutes with an outstanding record of achievement dating back more than 100 years. We are world leaders in identifying cancer genes, discovering cancer drugs and developing precision radiotherapy. Together with our hospital partner The Royal Marsden, we are rated in the top four centres for cancer research and treatment worldwide. As well as being a world-class institute, we are a college of the University of London.

We came second in the league table of university research quality compiled from the Research Excellence Framework (REF 2021). We have charitable status and rely on support from partner organisations, charities, donors and the general public. We have more than 1000 staff and postgraduate students across three sites – in Chelsea and Sutton.

CRUK Convergence Science Centre

The CRUK Convergence Science Centre (CSC) is seeking a talented Software Engineer to develop and maintain a patient app platform. This platform will enhance data science discovery research alongside clinical trials and empower patients in managing their treatment journey.

This innovative project is a collaborative effort between the clinical trial units at the ICR/Royal Marsden and Imperial College Business School, fully supported by the CSC. As part of this role, you will work closely with leading researchers from Imperial Business School and the ICR/Royal Marsden clinical trial units, as well as the CSC's implementation and translational teams.

The CRUK Convergence Science Centre is a research innitiative funded by Cancer Research UK (CRUK) that brings together experts from different scientific disciplines to tackle complex challenges in cancer research. It is a partnership between The Institute of Cancer Research ICR and Imperial College London, combining expertise from a wide range of fields, such as biology, engineering, physics, chemistry, and data science, to develop innovative solutions for cancer diagnosis, treatment, and patient care. The Centre focuses on convergence science, an approach that integrates diverse scientific perspectives to accelerate discovery and innovation. By fostering interdisciplinary collaboration, the Centre aims to translate cutting-edge research into practical applications, particularly in areas such as precision medicine, new technologies for cancer treatment, and patient-centered healthcare solutions.

Software Engineer

The successful candidate will work with the Research Faculty and Director of the Centre in supporting the Centre's research and software development, specifically in the area of data, analytics, algorithms and AI for Cancer Research. The Centre will be developing some health informatics applications and tools specifically for cancer research and trials.

We are looking for software engineers with strong database and programming skills and who have the ability to maintain production applications. You are expected to work independently with minimal supervision and have a strong desire and capability to pick up new technologies and frameworks in the software and health arena.

The post holder will undertake project management and collaborate with clinicians, researchers and other software developers.

Our mission is to make the discoveries that defeat cancer.

Our values

The ICR has a highly skilled and committed workforce, with a wide variety of roles, each requiring different skills. But whether you work as a researcher, or work as part of our corporate team, your work and behaviour is underpinned by these six values. They are what bring us together as one team - as 'One ICR'.



Pursuing excellence

We aspire to excellence in everything we do, and aim to be leaders in our field.



Acting with Integrity

We promote an open and honest environment that gives credit and acknowledges mistakes, so that our actions stand up to scrutiny.



Valuing all our people

We value the contribution of all our people, help them reach their full potential, and treat everyone with kindness and respect.



Working together

We collaborate with colleagues and partners to bring together different skills, resources and perspectives.



Leading innovation

We do things differently in ways that no one else has done before, and share the expertise and learning we gain.



Making a difference

We all play our part, doing a little bit more, a little bit better, to help improve the lives of people with cancer.



Our values set out how each of us at the ICR, works together to meet our mission – to make the discoveries that defeat cancer. They summarise our desired behaviours, attitudes and culture – how we value one another and how we take pride in the work we do, to deliver impact for people with cancer and their loved ones."

Professor Kristian Helin Chief Executive

Job description

Department / division:CRUK Convergence Science CentrePay grade / staff group:Scientific Professional 2Hours / duration:Full time (35 hours per week), Monday to Friday. Fixed term contract until March 2027Reports to:Professor Axel BehrensAccountable to:Professor Kalyan Talluri/Axel BehrensMain purpose of the job:R&D for ePRO app focus on iterative translational research

Duties and responsibilities:

Software Engineer

Develop and maintain the software infrastructure of the Centre

Enforce data and privacy security best practices and policies

Manage hardware or cloud computing resources in the most cost-effective way

Connect with external systems (hospital systems or external data sources) for accessing data

General

All staff must ensure that they familiarise themselves with and adhere to any ICR policies that are relevant to their work and that all personal and sensitive personal data is treated with the utmost confidentiality and in line with the General Data Protection Regulations

Any other duties that are consistent with the nature and grade of the post that may be required.

To work in accordance with the ICR's Values.

To promote a safe, healthy and fair environment for people to work, where bullying and harassment will not be tolerated.

This job description is a reflection of the present position and is subject to review and alteration in detail and emphasis in the light of future changes or development.

Person specification

Education and Knowledge

Computer Science or Health Informatics	Desirable
Undergraduate or post-graduate degree or diploma	Desirable
Programming proficiency/training certificates	Desirable

Skills

Proficiency in accessing databases and run queries (SQL)	Essential
Managing Cloud infrastructure (GCP)	Essential
Strong programming skills in at least one core language (C/C++, Java, Python)	Essential
Mobile/Web programming frameworks (Flutter, React Native, etc.)	Essential
Knowledge of APIs to access hospital patient management systems (eg: Epic)	Desirable
Knowledge of software vulnerabilities and security and GDPR data handling	Essential

Benefits

We offer a fantastic working environment, great opportunities for career development and the chance to make a real difference to defeat cancer. We aim to recruit and develop the best – the most outstanding scientists and clinicians, and the most talented professional and administrative staff.

The annual leave entitlement for full time employees is 28 days per annum on joining. This will increase by a further day after 2 years' and 5 years' service.

Staff membership to the Universities Superannuation Scheme (USS) is available. The USS is a defined benefit scheme and provides a highly competitive pension scheme with robust benefits. The rate of contributions is determined by USS and details of the costs and benefits of this scheme can be found on their website. If staff are transferring from the NHS, they can opt to remain members of the NHS Pension Scheme.

We offer a range of family friendly benefits such as flexible working, a parents' group, and a maternity mentoring scheme. Other great benefits include interest free loans for discounted season tickets for travel and bicycle purchases, access to the NHS discounts website, a free and confidential Employee Assistance Programme which offers a range of well-being, financial and legal advice services, two staff restaurants, and access to a gym and sporting facilities at our Sutton site.

Further information

You may contact the CRUK Convergence Science Centre for further information by emailing arnaud.legrand@icr.ac.uk. This job description is a reflection of the current position and is subject to review and alteration in detail and emphasis in the light of future changes or development.