Principal Bioinformatic Infrastructure Engineer

Department:	**Health Informatics**
Salary:	£65,535 to £77,863 (depending on skills & experience)
Hours of work:	Full time. Flexible working hours/ options compatible with the role can be discussed.
Base:	Cambridge. We offer flexible working arrangements. Our staff combine on-site and remote working, enabling us to come together when it matters most and promote a healthy work-life balance.
Reports to:	Head of Service, Clinical Computational Research Informatics
Closing date for applications:	Tuesday 20 June 2023 at 07:00am
Date of Interview:	Wednesday 28 June in person at our Cambridge office

About Eastern AHSN

Our purpose at Eastern AHSN is to turn great ideas into positive health impact.

We were established by the NHS to convene all partners in the health sector, to develop and deliver innovative solutions in health and care. Our focus is the East of England, but we are also part of a national network which enables us to deliver at scale.

Citizens, academia, health services and industry will achieve more working together than they will in isolation. Our job is to make this happen. We do this by helping innovators to navigate complex systems, generate value propositions and connect stakeholders to overcome challenges together.

https://www.easternahsn.org/

Our values and commitment to equity, diversity and inclusion

Eastern AHSN is fully committed to being an inclusive employer, affording equity of opportunity and welcoming applicants from broad and diverse backgrounds.

Staff at Eastern AHSN have come together to co-produce our values and expected behaviours. Our values focus on providing trusted expertise, being inclusive, kind and collaborative in all our working relationships and implementing innovations that truly matter to our communities and partners.

What are we looking for?

We are looking for colleagues who share not only our values but also our enthusiasm and commitment to making a difference for our communities. We are united by being dynamic, curious, creative and adaptable. We appreciate the value of evidence and also enjoy trying new and different approaches to solving problems and are comfortable with ambiguity, often-changing plans and unanticipated challenges.

Job summary and purpose

The post holder will work as part of the Health Informatics Team, delivering programmes of work that provide secure cloud-based and on-prem environments for storing and accessing health and other sensitive data for research and innovation. The team brings together partner organisations from across different sectors to provide the programme management, operational and technical functions for both nationally and locally driven projects.

The **principal bioinformatic infrastructure engineer** will provide technical oversight, direction and advice in the development of new solutions to support this work. This will require a diverse skill set and the ability to rapidly understand new concepts and processes. The ability to communicate with people of diverse technical backgrounds is a key requirement of this position.

Much of the work will be centred around the provision of research environments in the cloud, such as CYNAPSE (cynapse.org.uk), custom Trusted Research Environments, Data Platforms and other methods of ensuring data is accessible for diverse use cases, while secured and governed appropriately.

KEY RESPONSIBILITIES

- Co-lead metadata infrastructure development.
- Co-lead and develop the integration of systems & data to provide fully rounded research ecosystems.
- Co-lead the development and implementation of the clinical research computational infrastructure across the Cambridge Biomedical Research Campus (BRC).
- Deputise for the Head of Service when required.
- An expectation that the role holder will pick up line management responsibilities in future as the team continues to grow.
- Oversee data storage and warehousing for the BRC infrastructure.
- Support migration activities from on-prem to cloud technologies.
- Keep abreast of new & emerging technologies and bioinformatics methods.
- Ensure team members are appropriately developed to maximise potential and enhance team resilience.
- Promote the benefits of adopting normalised and centralised data processing.
- Long term infrastructure planning and cost management.
- Engagement with wider Health Informatics team projects.
- Provide technical input into the development of project plans and feasibility assessments.

Corporate and personal responsibilities

- Promote equal opportunities and affirm that staff, colleagues, patients, and others who encounter Eastern AHSN are afforded equality of access, experience and outcomes.
- Observe Eastern AHSN's equity, diversity and inclusion pledges in every aspect of your work, avoiding any behaviour which discriminates against colleagues, potential employees, patients, or partners on any grounds.
- Uphold and promote the organisation's values.
- Work flexibly and collaboratively with others to achieve the organisation's goals and support its values.
- Support the organisation in creating an environment that values risk management and promotes the highest standards of health and safety for Eastern AHSN's employees, supported by policies and procedures as appropriate.
- Ensure up to date knowledge is maintained and comply with current data protection laws and company data protection and confidentiality policies and procedures.
- Ensure that we only operate within our remit of not offering clinical advice.
- Adhere to all company policies and procedures and any applicable legislation.

Person specification

Competence	Essential requirements
Qualifications and training	• MSc. or higher with a background in both biological sciences and informatics with >5 years' experience
Knowledge	• Extensive knowledge of large-scale data management • Bioinformatic tooling, file formats and methodologies • Understanding of research workflows • Good oversight of cloud technologies and limitations
Skills	• Deployment and use of workflow management software (e.g. Nextflow) • Container virtualisation (Docker / Singularity) • Scripting languages (bash, python, R) • Database design • Infrastructure as Code (Terraform or similar) • Version control (git)
Experience	• Delivery of large-scale informatics programmes • Working in traditional HPC clusters • Working within life-sciences research • Migrating technical solutions to cloud • Development of CI/CD pipelines and assurance processes • JIRA and Confluence for work tracking and documentation • Confident presenter, able to communicate complex solutions to lay persons. • Working with Common data models (e.g. OMOP)

Right to work in the UK	• Applicants must be able to provide evidence of their right to work in the UK at the point any job offer is made.

Personal development responsibilities

- Understanding and awareness of own personal development needs.

Key relationships

Internal **-** all Eastern AHSN employees will be expected to form key relationships within the organisation relevant to the role.

External **-** in addition, the successful appointee will need to develop and build relationships with external colleagues as relevant to the role. These may include, but are not limited to, relationships with:

- Operational colleagues within partner organisations may include but not exclusively:
- NHS Trusts and NHS Foundation Trusts
- Care Quality Commission
- Local Government
- Integrated Care System and Clinical Commissioning Groups etc.
- NHS England & NHS Improvement
- Third Sector Organisations
- Patient Advisory Groups/Services

Benefits of working at Eastern AHSN

As part of the benefits package, Eastern AHSN's employees are entitled to 27 days of annual leave plus bank holidays (pro rata for less than wholetime equivalent) and are offered a company pension (employer contribution up to 10% of annual salary) as well as a cycle to work scheme. In addition, all employees have unlimited access to the company's well-being programme which is fully confidential. Team members on secondments will remain on their employer's terms and conditions.

This job description is intended as an outline of the general areas of activity and will be amended in the light of the changing needs of the organisation.