JOB DESCRIPTION

Job Title	: TVS SNSDE Software Engineer
Base	: Big Data Institute, Oxford
Grade	: Band 8a
Hours of work	: 37.5
Directorate	: Digital
Responsible to	: TVS SDE Technical Lead
Accountable to	: TVS SDE Programme Director
Details of special conditions	: 2-year fixed term contract with the possibility of extension

Job Summary:

We are seeking experienced individuals with talent, expertise, and ambition in software engineering. We can offer the opportunity to work on innovative solutions that will transform scientific research and healthcare delivery in the NHS.

The successful candidate will work as part of the Thames Valley and Surrey (TVS) Sub National Secure Data Environment (SNSDE) Programme hosted by Oxford University Hospitals NHS Foundation Trust (OUH). They will contribute to the design and implementation of systems for data acquisition, integration, and analysis across a wide range of clinical systems and settings for this important national programme.

The tools and services they deliver will have a significant impact on the delivery of this programme. Working with academic and NHS colleagues across the Thames Valley and Surrey region, the post holders will have the satisfaction of seeing their software in use: improving patient care and supporting cutting-edge research.

Main Tasks and Responsibilities

The successful candidate will make significant, expert contributions in a range of digital areas, including systems, applications and information interpretation, resolve a range of highly complex software engineering issues, take individual responsibility for strategic contributions and planning in a range of specialised areas and design, develop and adapt complex software solutions.

Working as part of the OUH R&D Clinical Informatics team, the successful candidate will:

Technical

- Contribute to the design and development of software tools and data services that support collaborative, large-scale, data-driven health research.

- Work with clinicians, researchers, and other stakeholders to ensure that the design and development makes the best use of resources and reflects emerging priorities.

- Develop of software and associated artifacts, for cloud-based systems such as MS-Azure, and oversee the initial deployment into test and production.

Learning, Respect, Delivery, Excellence, Compassion, Improvement

- Manage issues, fix bugs, releasing new software versions through the lifecycle of the system.

- Feed requirements into the design of the wider enterprise platform architecture supporting the SDE.

- Participate in scientific discussion and training, with regards to new software technologies and clinical research applications.

- Communicate/present/delivering training on a range of software engineering issues which can be complex and multistranded.

- Identify issues and opportunities, and develop solutions to requirements independently and as part of the technical and wider programme team.

- Plan and monitor the quality of their own work and that of the team through regular stand ups, pair programming and quality assurance of others' work.

- Effectively communicate issues, solutions and complex concepts to a range of audience types, and especially to members of the programme team and wider stakeholder groups.

Management

- Deliver training on a range of specialist software and informatics subjects, working to upskill new and existing staff members and other colleagues across the SNSDE network.

- Take on line management of junior software engineers as the team expands.

- Have financial responsibility for the identification, sourcing and purchase of required software assets and supplies and will be responsible for the installation and maintenance of software assets.

- Input into the development of deliverables for external software development supplier contracts and manage day to day activities of external contractors to ensure delivery within set timescales and budgets.

- Have responsibility for interpreting local and national policies as they apply to the programme and the network, and determining how to implement relevant policies to progress the development of the SNSDE service.

- Identify and propose changes to relevant policies and the development of the service as they arise, including those that may affect the whole network of SNSDEs or national policies and service expectations.

- Operate on an ongoing basis with minimum guidance, setting standards for others in the team and across the SNSDE network.

Organisational

- Maintain confidentiality of health and other operational data and compliance with relevant NHS, clinical, and information governance standards.

- Be accountable for professional conduct, complying with the trust's policies and procedures, and undertaking other duties as required by the Director.

- Be required to produce precise and accurate work, maintaining concentration for significant periods of time, with extended concentration required for complex problem solving, and be able to work with a moderate level of emotional effort that comes with working with real world patient data.

Effort

- Undertake periods of intense concentration when developing complex software solutions. This can be continuous for up to 8 hours each day and is a significant aspect of the job.

- Require a high level of concentration when developing complex software solutions, which may be subject to frequent interruptions to deal with queries, including providing advice to colleagues.

- Be able to work under pressure and meet ever changing prioritises and deadlines.

- The post holder may be exposed to distressing/emotional circumstances, for example dealing with staff conflict, on an infrequent basis, or when working with patient data, on a moderately frequent basis.

General Conditions

Risk Management

The management of risk is the responsibility of everyone and will be achieved within a progressive, honest and open environment.

Staff will be provided with the necessary education, training and support to enable them to meet this responsibility.

Staff should be familiar with the

- Major Incident Policy
- Fire Policy
- Information governance

and should make themselves familiar with the 'local response' plan and **their** role within that response.

Responsibilities for Health and Safety

The post holder is responsible for ensuring that all duties and responsibilities of this post are carried out in compliance with the Health & Safety at Work Act 1974, Statutory Regulations and Trust Policies and Procedures. This will be supported by the provision of training and specialist advice where required.

Infection Control

Infection Control is everyone's responsibility. All staff, both clinical and non-clinical, are required to adhere to the Trusts' Infection Prevention and Control Policies and make every effort to maintain high standards of infection control at all times thereby reducing the burden of Healthcare Associated Infections including MRSA.

All staff employed by OUH have the following key responsibilities:

- Staff must wash their hands or use alcohol gel on entry and exit from all clinical areas and/or between each patient contact.
- Staff members have a duty to attend mandatory infection control training provided for them by the Trust.
- Staff members who develop an infection (other than common colds and illness) that may be transmittable to patients have a duty to contact Occupational Health.

Child Protection

The post holder will endeavour at all times to uphold the rights of children and young people in accordance with the UN Convention Rights of the Child.

Safeguarding Children and Vulnerable Adults

The Trust is committed to safeguarding children and vulnerable adults throughout the organisation. As a member of the trust there is a duty to assist in protecting patients and their families from any form of harm when they are vulnerable.

Information Governance

All staff must complete annual information governance training. If you have a Trust email account this can be completed on-line, otherwise you must attend a classroom session. For further details, go to the Information Governance intranet site.

Data Quality

Data quality is a vital element of every member of staff's job role. Oxford University Hospitals recognises the importance of information in the provision of patient care and in reporting on its performance. Data quality is therefore crucial in ensuring complete, timely and accurate information is available in support of patient care, clinical governance, performance management, service planning, and financial and resource planning and performance.

All staff should ensure that they have read and understood the Trust's Data Quality Policy.

PERSON SPECIFICATION

Job Title: TVS SNSDE Software Engineer

	Essential	**Desirable**
Qualifications	In-depth knowledge of software engineering acquired through a combination of specialist training and relevant study (eg computer science, software engineering, mathematics) to Master's degree or equivalent level.	Extensive, relevant professional experience may be considered against the requirement for a degree in computer science or a related discipline (the expectation of professional, technical competence is at least that associated with a degree level education in this subject).
Experience	Strong skills in relevant programming languages and frameworks, including **either** JavaScript and Angular/React **or** Spring, Java EE, Grails, Micronaut or similar, with some exposure to Python. Good understanding of data models, data structures, and data formats, including JSON, SQL, and XML. A strong track record of achievement in software development.	Experience of working with sensitive or confidential data, such as financial information or patient records. Interest and/or experience in technologies relating to data science, for example: statistical analysis, machine learning, or natural language processing. Experience of agile development.
Analytical & Judgemental Skills	Ability to make judgements on multi-stranded or complex software engineering problems which may have no precedent or where there are conflicting opinions.	Expert in the field.
Personal Skills	Excellent communication skills, both written and oral, and an enthusiastic approach to multi-disciplinary working. Ability to lead development activities in specific areas, including collaborative development across organisations.	

Learning, Respect, Delivery, Excellence, Compassion, Improvement

	Essential	**Desirable**
Behavioural Skills	Aligned to the Trust values. Always conducts themselves in a professional manner. Positive attitude to all tasks and stakeholders.	Ability to work in the office several days a week, with some flexibility on home working.