

Senior Software Engineer White City, London

The Role

We have a new opening for a Senior Software Engineer within our growing Software team based in London.

The purpose of this role is to design, develop and maintain DNAe's analysis pipeline. The pipeline turns raw signals into intermediate data and then DNA basecalls, which are in turn used to determine a medical diagnosis. In addition, there is a requirement to develop bespoke data analysis tools.

Duties and responsibilities

- To develop and maintain the primary informatics pipeline for the DNAe's NGS platform.
- To use the software development life cycle, from prototyping novel analysis methods, to implementation, to refinement with feedback from R&D.
- To integrate the pipeline as a component within the physical medical device. Contributing to its optimisation, maintenance and improvements as required.
- Invent and prototype novel methods to improve data quality and throughput.
- Provide analysis and rigorous modelling of raw electronic signals generated by the DNAe NGS platform.
- Perform analysis of datasets generated by ongoing R&D work including but not limited to modelling of raw electronic signals generated by the DNAe NGS platform and development of algorithms.
- Drive the software through the full development life cycle, including software requirements, design, implementation, testing and maintenance using Agile development methodologies.
- In collaboration with the IT department and independent contractors (as required), develop and maintain an IT infrastructure to support robust and efficient data management, analysis and storage in a regulated environment.
- Other duties as assigned.

Requirements/Experience

- Degree in Computer Science, Physics, Mathematics or equivalent technical/numeric discipline, or extensive software product development experience.
- Extensive solid software development experience using Python is a must. Medical device software development experience in accordance with IEC 62304 standard is a plus but not required.
- Understanding and demonstrable skills in real-time signal processing, data analysis, optimisation, pattern recognition and machine learning.
- Confidence with a Linux environment and Git source code repository.
- Clear communication skills and proven ability to mentor others.



Desirable Experience:

- Strong mathematical background with deep knowledge of algorithmic, statistical and machine learning methods.
- Strong analytical and problem-solving skills, with demonstrable experience in designing performant, scalable algorithms for data cleaning, classification and modelling.
- Experience with mathematical and scientific packages - NumPy, Numba, Pandas, SciPy, OpenCV, Tensorflow, PyTorch, Ray, Dask.
- Experience in producing software specification documents for regulated environments.
- Working knowledge of advanced C++, such as Boost, Qt, CMake, CppUnit and valgrind is a nice to have.
- Working knowledge of distributed computing solutions including GPU-based frameworks.

Workplace

This role is based at Scale Space, White City.

A hybrid working arrangement and flexi time is possible for this role (with a minimum of 2 days in the office a week).

Apply

To apply please email careers@dnae.com with your CV and salary expectations. Please include any other information you would like us to consider.