# Senior Genomics Data Scientist

**Description**

## Company Description

Genomics England partners with the NHS to provide whole genome sequencing diagnostics. We also equip researchers to find the causes of disease and develop new treatments – with patients and participants at the heart of it all.

Our mission is to continue refining, scaling, and evolving our ability to enable others to deliver genomic healthcare and conduct genomic research.

We are accelerating our impact and working with patients, doctors, scientists, government and industry to improve genomic testing, and help researchers access the health data and technology they need to make new medical discoveries and create more effective, targeted medicines for everybody.

## Job Description

We are seeking a Senior Genomics Data Scientist to join our Bioinformatics Consulting team at Genomics England and lead on a range of genome analysis and interpretation projects with an emphasis in rare or complex disease, in collaboration with and on behalf of our external researchers and industrial partners.

In this role, you will develop and execute cutting edge statistical and computational genomics analyses that leverage Genomics England datasets to address a broad set of research questions.

You will drive projects from conception to completion and lead the scoping and implementation of state-of-the-art statistical and computational approaches for analysis of genomic and other omics modalities. You will develop and fine-tune tools and pipelines to carry out custom analyses on demand in our research environment, generate new data and disseminate findings in publication-quality reports and documentation.

**Everyday responsibilities include:**

- Performing custom computational analyses on whole genome sequencing and other omics datasets, including genome-wide association studies, aggregate variant association testing, meta-analysis, transcriptome-wide association studies, fine-mapping and MR.
- Preparing statements of work for projects and delivery of publication-level quality reports of the findings and analyses, with minimal supervision.
- Preparation of data for downstream analysis, e.g. through quality control, functional annotation, harmonisation across different datasets.
- Researching the scientific literature, identifying and implementing new approaches to genome analysis, as well as contributing to the publication and dissemination of our learnings in the form of scientific papers, white papers and conferences.
- Providing computational genetics expertise to utilise the right tools for each analyses and support internal teams and commercial clients, being the point of reference for genomic datasets and analytical approaches.

**Hiring organization**
Candidate-1st

**Employment Type**
Full-time

**Beginning of employment**
asap

**Job Location**
London, United Kingdom

**Working Hours**
40

**Base Salary**
euro GBP 62K+

**Date posted**
June 8, 2024

- Benchmarking and improving tools for processing and analysis of whole genome sequencing data.

**Skills and Experience for Success**

We anticipate the ideal candidate will have:

- Strong programming skills (R, Python) and demonstrable knowledge of statistical genetics.
- Demonstrable experience in using next generation sequencing data at scale in the context of human genetics.
- Strong background in human disease genetics, preferably in rare or complex disease, demonstrated by leading high impact publications or industry track record.
- Demonstrable experience in one or more areas of human germline DNA analysis such as genetic association testing, population genetics, pharmacogenomics, rare disease genomics, risk score prediction, structural variation analysis, working with complex genomic regions such as HLA/KIR.
- Experience with working in the cloud, building containers, and running pipelines in nextflow.
- Proven ability to communicate with stakeholders from diverse backgrounds (e.g. management, IT, R&D, biology, bioinformatics) and a clear understanding of clinical and phenotypic data management and the sensitivities surrounding patient cohort data.
- Excellent interpersonal skills, keeping track of customer relationships, providing high calibre troubleshooting, identifying unmet customer needs and suggesting solutions to improve material or analytical approaches.

## Qualifications

A PhD in Computational or Statistical Genetics with extensive post-doctoral or equivalent work experience in human genetics research.

## Additional Information

**Salary from £62,000**

Being an integral part of such a meaningful mission is extremely rewarding in itself, but in order to support our people, we're continually improving our benefits package. We pride ourselves on investing in our people and supporting them to achieve their career goals, as well as offering a benefits package including:

- 30 days' holiday (plus bank holidays), with additional days for long service awards
- A generous pension scheme of up to 15% combined contribution
- Life Assurance (3 x salary)
- Individual learning budgets for every colleague, a Blinkist account and a wide variety of courses on our portal
- A wide variety of wellness benefits including Gympass, a Headspace account, free weekly Yoga classes
- Enhanced maternity & paternity benefits
- Blended working arrangements

Talk to our Talent Team and find out how a career with Genomics England will benefit you.

#LI-Hybrid

Genomics England is actively committed to providing and supporting an inclusive environment that promotes equity, diversity and inclusion best practice both within our community and in any other area where we have influence. We are proud of our diverse community where everyone can come to work and feel welcomed and treated with respect regardless of any disability, ethnicity, gender, gender identity, religion, sexual orientation, or social background.

Genomics England's policies of non-discrimination and equity and will be applied fairly to all people, regardless of age, disability, gender identity or reassignment, marital or civil partnership status, being pregnant or recently becoming a parent, race, religion or beliefs, sex or sexual orientation, length of service, whether full or part-time or employed under a permanent or a fixed-term contract or any other relevant factor.

Genomics England does not tolerate any form of discrimination, harassment, victimisation or bullying at work. Such behaviour is contrary to our virtues, undermines our mission and core values and diminishes the dignity, respect and integrity of all parties.

Genomics England operates a blended working model as we know our people appreciate the flexibility. We expect most people to come into the office 2 times each month as a minimum. However, this will vary according to role and will be agreed with your team leader. There is no expectation that staff will return to the office full time unless they want to, however, some of our roles require you to be on site full time e.g., lab teams, reception team.

Our teams and squads have, and will continue to, reflect on what works best for them to work together successfully and have the freedom to design working patterns to suit, beyond the minimum. Our office locations are Canary Wharf, Cambridge and Leeds.

As part of our recruitment process, all successful candidates are subject to a Standard Disclosure and Barring Service (DBS) check. We therefore require applicants to disclose any previous offences at point of application, as some unspent convictions may mean we are unable to proceed with your application due to the nature of our work in healthcare.

**How the process will look like**

Your teammates will gather all requirements within our organization. Then, once priority has been discussed, you will decide as a team on the best solutions and architecture to meet these needs. In continuous increments and continuous communication between the team and stakeholders, you're part of making data play an even more important (and understood) part withing Brand New Day.

**Job Benefits**

GBP 62K+