



centre nacional d'anàlisi genòmica
centro nacional de análisis genómico

Structural Genomics – Front-end Software Engineer

Job Offer

CNAG – The Institute

The Centro Nacional de Análisis Genómico (CNAG) is one of the largest Genome Sequencing Centers in Europe.

The CNAG Consortium aims to carry out large-scale projects in DNA/RNA analysis for the improvement of quality of life in collaboration with the Spanish, European and International Research Community. CNAG researchers participate in major International Genome Initiatives such as the Human Cell Atlas (HCA), the International Cancer Genome Consortium (ICGC), the International Human Epigenome Consortium (IHEC), the International Rare Diseases Research Consortium (IRDiRC), the European Reference Genome Atlas (ERGA) and the European Infrastructure for life-science information (ELIXIR), as well as in several EU-funded projects.

CNAG occupies approximately 1,400 square meters of laboratory and office space and operates 4 Illumina instruments (3 NovaSeq6000 and 1 MiSeq) and 2 large Oxford Nanopore Technologies sequencers (1 PromethION 24 and 1 GridION Mk1) that produce more than 7 Tbases of sequencing data per day. The sequencing operation is supported by an extensive informatics infrastructure: 15 petabyte of data storage, 10.000 computing cores and an internal 56 Gb/s network. The operation is certified ISO 9001 and accredited ISO 17025 and serves to deliver standardized, high-quality data for research and clinics. CNAG has highly developed single-cell operation equipped with a 10x Chromium X, 10x Chromium Connect, MissionBio Tapetri for individual cell analyses and for tissue analysis a Nanostring CosMx, 10x Visium, Stereo-seq, and VUTARA VXL.

The CNAG has more than 100 professionals, structured in different units such Bioinformatics, Sequencing, Single-cell, Research, and Corporate Management.

The Role

The Structural Genomics Group headed by Marc A. Martí-Renom and hosted at the CNAG and the Genome Biology Program of the CRG is seeking a front-end software engineer to work in our 3D'omics project.

We have an opening for a Front-end Software Engineer to play a key role our 3D'omics project in the field of **data visualization of omics data**. Currently, we are looking for candidates with experience in data visualization in Web interfaces. Candidates should

have a background in computational methods for large datasets visualization preferably next generation sequencing datasets. Experience in coding JavaScript, Typescript, or other programming languages is a prerequisite. The candidate will actively participate in a funded project by H2020 on 3D'omics entitled "**Three-dimensional holo'omic landscapes to unveil host-microbiota interactions shaping animal production**" and coordinated by Antton Alberdi (University of Copenhagen). Thus, the candidate will be part of a large inter-disciplinary team composed of 13 research labs in 12 different EU countries.

We are looking for a highly motivated and creative thinking individual who is interested in working in an environment where the technical sophistication of structural genomics technologies meets innovative approaches for interpreting data and generating new knowledge. We require the ability for working in a multi-disciplinary context on collaborative projects.

Please, visit our web site at <http://marciuslab.org> to see our work and all publications from the group.

Whom would we like to hire?

- Bachelor degree or Master degree in Computer science or related fields
- A minimum experience of 2 year in a Software related position, preferentially as Front-end software engineer.
- Proven experience in coding in JavaScript, Typescript, or other programming languages.
- Experience with HTML and CSS.
- Experience with source control system as git.
- Ability to fast translate requirements to prototype and good eye for design.
- Good organizational, prioritizing, communication and interpersonal skills.
- Good spoken and written English.

It would be nice to have:

- Experience with genomics data.
- Experience with spa framework (React JS, Vue.js, Svelte, Angular, etc.)
- Experience with CSS framework (Bootstrap, Material UI)
- Experience with front-end testing (Selenium, Cypress)

Specific tasks:

- Design and implement the User Interface with a JS framework (Reactjs, Vuejs, etc.)
- Gather the UI and UX requirements with the data analyst specialists
- Collaborate with back-end developers and web designers to improve usability

The Offer

- **Contract duration:** initially 1 years with possibility of extension
- **Estimated annual gross salary:** Salary is commensurate with qualifications and consistent with our pay scales.
- **Target start date:** as soon as possible

We provide a highly stimulating environment with state-of-the-art infrastructures, and unique professional career development opportunities.

We offer and promote a diverse and inclusive environment and welcomes applicants regardless of age, disability, gender, nationality, race, religion or sexual orientation.

We are committed to reconcile a work and family life for our employees and are offering the opportunity to benefit from annual leave and flexible working hours.

Application Procedure

All applications must include:

- A complete CV including contact details.
- Contact details of two referees.

All applications must be addressed to Dr. Marc A. Marti-Renom – martirenom@cnag.eu / mireya.fernandez@cnag.eu

Deadline: Please submit your application by 10/Dec/2023

Interview: Shortlisted candidates may be invited for interview at CNAG during December 2023

Please, see all of our job opportunities in the Career site of CNAG website: <https://www.cnag.eu/jobs>

Consortium CNAG

Centro Nacional de Análisis Genómico

National Center for Genomic Analysis

