



Bioinformatics Position – Senior Bioinformatician

Context

IGATech is a leading European provider of advanced sequencing services, processing over 40,000 samples every year across academic, clinical, and industrial research. Our infrastructure combines state-of-the-art sequencing platforms with in-house computational solutions to deliver robust, scalable, and reproducible analyses.

A key area of growth is the analysis of large-scale transcriptomics datasets, with increasing demand for single-cell and spatial transcriptomics, as well as integration across multiple samples, conditions, and technologies.

The role

We are looking for a Senior Bioinformatician able to provide advanced support in the development of complex pipelines and aggregation frameworks for the analysis of large datasets. The selected candidate will have the opportunity to work on a variety of experiments in transcriptomics and epigenomics, with the possibility to develop the integration of analytical methods and emerging sequencing technologies. A specific goal will be to contribute to the development of an integrated spatial transcriptomics data analysis framework to generate the reference database for a large deep-learning engine, as part of the project “3-DIMENSION - Three dimensional Spatial Transcriptomics Interdisciplinary Platform for Precision Medicine”, CUP B23D2400175008, funded by the *Italian Fund for Applied Sciences (FISA)*.

The company’s core business is the delivery of quality-oriented services, and one of our key values is the ability to operate in an industrial-grade environment. Therefore, our bioinformatics solutions must be highly reproducible, well documented, and computationally optimized. The selected candidate will therefore dedicate time both to R&D activities—such as exploring new bioinformatics solutions and designing more tailored services—and to consolidating “push-button” pipelines for standardized processes. Interaction with customers and stakeholders will be part of the role, with the aim of understanding needs and proposing the most suitable analytical solution.

This role is designed for candidates who can operate at the intersection of:

- data analysis (deep understanding of biological signals)
- methodological development (pipeline and workflow design)
- scalability (handling large, multi-sample studies)



Key Tasks and Responsibilities

- Analyze datasets of hundreds of samples
- Design and implement strategies for:
 - multi-sample integration
 - batch correction and normalization
 - cross-condition comparisons
- Integrate heterogeneous datasets across:
 - different experiments
 - sequencing technologies
 - biological conditions
- Deliver customized analysis services to customers.
- Develop and maintain data analysis pipelines in coordination with the bioinformatics team.
- Provide support to end-users for the utilization of standardized pipelines.
- Scouting for cutting-edge and market-relevant analytical solutions

Educational Background

- PhD in Bioinformatics, Computational Biology, Genomics, or related disciplines (biology, genetics, biotechnology, etc.)
- Equivalent industrial experience may be considered if supported by strong technical evidence

Core skills

NGS Data Analysis & Transcriptomics

- Proven experience in NGS data analysis, with a strong focus on:
 - RNA-seq (mandatory)
 - Single-cell transcriptomics (strongly preferred)
 - Spatial transcriptomics (as a plus)
- Ability to design and execute analyses involving:
 - multi-sample integration
 - batch correction and normalization strategies
 - complex experimental designs
- Solid understanding of:
 - count-based data models
 - statistical frameworks for differential analysis



- biases and limitations of sequencing technologies

Programming & Software Development

- Advanced programming skills in Python, R.
- Ability to write clean, modular, and maintainable code
- Debug complex pipelines and data processing issues
- Familiarity with software development best practices (version control, code review, documentation)
- Transforming analytical workflows into production-ready systems
- Hands-on experience with workflow managers:
 - Nextflow, Snakemake (preferred)
- Strong focus on reproducibility through:
 - version control (Git mandatory)
 - environment management (Conda or equivalent)
 - containerization (Docker, Singularity/Apptainer)
- Proficiency with Unix/Linux environments
- Experience with HPC environments
- AI-Assisted Development (Strong Plus): Experience using AI-assisted coding tools to accelerate development and improve code quality and debugging

Large-Scale Data Handling & Integration

- Proven ability to manage and analyse large datasets
- Experience in integration of large multi-sample/multi-omics studies with handling high-dimensional datasets (e.g. single-cell matrices)
- Familiarity with optimized data structures (e.g. sparse matrices, HDF5-based formats)
- Performance-aware coding practices (asynchronous tasks)

NGS Technologies & Experimental Awareness

- Good understanding of NGS library preparation principles and sequencing workflows
- Ability to interpret how experimental design impacts downstream analysis

Language Requirements

- Proficient in English (written and spoken)



Required Personal Skills

- Good time management and prioritization skills.
- Ability to lead and gain the assistance and cooperation of others in a team.
- Strong interdisciplinary attitude to integrate external visions and skills.
- Strong communication skills and attention to stakeholder needs.
- A product-oriented approach to bioinformatics.
- Ability to work independently and be self-motivated.
- A strong work ethic and a commitment to delivering results on time.

Contract

- Fixed-term contract of 24 months
- National Collective Labor Agreement (CCNL) for the Chemical-Pharmaceutical sector, level B2.
- Indicative gross annual salary: €36,000 – €40,000, depending on experience, with incentive plans
- Meal vouchers and corporate benefits
- Full-time (40 hours/week)
- Workplace: Udine, “Luigi Danieli” Science and Technology Park

To apply

Write to info@igatechnology.com and include:

- Your CV, please include relevant publications, projects and/or GitHub/GitLab/Bitbucket repositories
- A short letter of motivation
- Name and contact of 2 potential referees.