Sébastien Gradit

Bioinformatician

Issy-les-Moulineaux, France

+33 6 50 84 94 62

sebastiengradit@gmail.com

Social Network

S. Gradit

sebgra

About Me

PhD-trained bioinformatician from the Pasteur Institute seeking to apply expertise in data science and biological interpretation to advance research. Proven ability to leverage machine learning and statistical modeling to solve complex biological problems.

Languages

- English: Fluent (TOEIC 955/990)
- French: Mother tongue

Hard Skills

- Basic programmation: Bash, Python, R, C++, HPC (Slurm, AWS)
- Bioinformatics: Multiomics integrative analysis, Automation of mapping and genomics analysis
- Data analysis: Data mining, interactive dashboards (Shiny, Streamlit), SQL databases
- Machine learning: TensorFlow, Keras, Scikit-learn
- Workflow: CI/CD automation (git, Snakemake, Nextflow)
- Containerization and deployment (Docker, Singularity)
- Web: Static (HTML, CSS)

Soft Skills

- Adaptability
- Communication
- Problem solving
- Scientific inquiry

Working Experience

currently — **PhD candidate** — Pasteur Institute, Paris
PhD research focused on developing statistical methods to address missing data in genomics, with applications in chromatin architecture.

02/2020 – 08/2020 — **Biomedical Engineer** — Siemens Healthcare - LIPADE, Paris
Applied machine learning techniques to xSPECT imaging for automated segmentation of bone lesions, enhancing the objectivity and precision of cancer treatment monitoring compared to traditional SPECT imaging.

02/2019 – 09/2019 — **Biomedical Engineer** — Danone Research, Saclay
Benchmark of bioequivalence assays, development of interactive interface for clinical trial statistical plans visualization, and machine learning methods implementation for clinical trial plan refactoring for data-driven decision-making.

05/2018 – 08/2018 — **Biomedical Engineer** — Caboma, Montréal
Design and optimization of biomechanics models within proprietary software, tailoring foot orthotics designs to individual patient morphology for improved treatment outcomes.

Education

2021 – 2024 — **PhD in bioinformatics** — Pasteur Institute - Sorbonne University
Regulation Spatiale des Genomes lab.

2019 – 2020 — **M.Sc. in Image Processing** — Télécom Paris - Sorbonne University
Advanced medical images processing and A.I. | *Honors*

2016 – 2019 — **Master's Degree in Engineering (Dipl. Ing.)** — ISBS - ESIEE Paris
Bioinformatics, Medical Imagine and A.I. | *Highest Honors*

Publications

Pending — **Hicberg: Reconstruction of genomic signals from repeated elements - BiorXiv**
Gradit S., Ortion S., Larrous P., Koszul R., Cournac A.

Selected Scientific Communication

2024 — **JOBIM 2024** — Toulouse, France
Poster | Prediction of omics signals from repeated elements.

2024 — **JeBiF@JOBIM 2024** — Toulouse, France
Workshop | Good practices in bioinformatics.

2024 — **ICTE** — St-Malo, France
Poster | Prediction of omics signals from repeated elements.

2023 — **31th Intelligent Systems For Molecular Biology** — Lyon, France
Poster and Talk | Statistical inference of repeated sequence contacts in Hi-C maps.

Certifications

2023 — **DeepLearning.AI**
TensorFlow Advanced Techniques Specialization

2023 — **DeepLearning.AI**
Deep Learning Specialization

2023 — **DeepLearning.AI - Stanford**
Machine Learning Specialization

Awards

2022 — **1st Prize of D4GEN Hackathon** — Genopole - Evry
Predicting interactions between nuclear parasites and host chromosomes