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Lyon, France

Jordan Dutel

Bioinformatics Engineer – Junior Level

Portfolio
github.com/jdutel42
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Objectives

Bioinformatician with a strong foundation in **molecular biology** and **immunology**, passionate about leveraging **multi-omics** and **drug discovery** to drive innovation in biotechnology. Motivated to contribute to high-impact projects, with long-term career goals spanning **translational research**, **biotech innovation**, and **leadership**.

Skills

Bioinformatics	Genomic data analysis (QC, sequence alignment, variant calling), spatial and single-cell transcriptomics (Seurat), proteomics (Mascot), multi-omics integration (Seurat, Scanpy), structural bioinformatics (ChimeraX), R, Bash, Python, JavaScript, SQL
Data Science	Statistical modeling, differential expression, clustering, dimensionality reduction, machine learning
Technical Tools	High-Performance Computing (HPC), reproducible environments (Git, Anaconda, Docker, Singularity), workflow automation & optimization (Nextflow)
Soft skills	Communication (presentations, meetings) and writing (reports, LaTeX), project management, high autonomy & initiative, team coaching, training & mentoring
Languages	French (native), English (fluent, written & spoken), Spanish & Italian (basic), Mandarin Chinese (beginner, learning)

Experience

Master 2 Bioinformatics Intern – Spatial Transcriptomic Analysis **February 2025 — August 2025**
CRCL – Cancer Research Center of Lyon *Lyon, France*

- Analyzed spatial transcriptomics data (10X Visium) from 15 triple-negative breast cancer (MpBC) patients.
- Integrated expert-annotated phenotypic cell types to characterize tumor heterogeneity.
- Developed and optimized normalization, feature selection, and batch effect correction pipelines (Seurat, Harmony).
- Identified spatially enriched markers and distinct transcriptional profiles among tumor subtypes.
- Contributed to ongoing research on rare breast cancer evolution and potential PhD project.

Master 1 Bioinformatics Intern – Multi-omics & Statistical Analysis **April 2024 — August 2024**
CLB – Léon Bérard Center *Lyon, France*

- Performed integrative analysis of genomic, transcriptomic, and proteomic data from the Profiler cancer cohort.
- Conducted differential expression and pathway enrichment to identify molecular signatures associated with clinical subtypes.
- Implemented reproducible pipelines in R for data preprocessing and normalization.
- Applied MOFA to identify latent factors capturing shared and specific sources of variation across omics layers.

Master 2 Immunology Research Intern – Immunopathology and Immuno-oncology **January 2023 — July 2023**
CRCL – Cancer Research Center of Lyon *Lyon, France*

- Investigated the regulation of the NF-kB signaling pathway in response to pro-inflammatory stimuli in human cell lines.
- Performed cell culture, Western blotting, immunofluorescence and flow cytometry to assess pathway activation and gene expression.
- Contributed to functional assays exploring the role of NF-kB in cellular stress and apoptosis.
- Analyzed experimental data to characterize molecular mechanisms of inflammation-related gene regulation.

Master 1 Molecular Biology Research Intern – RNA delivery engineering **April 2022 — July 2022**
CIRI – International Center for Infectious Disease Research *Lyon, France*

- Developed and characterized a novel RNA delivery system based on the endogenous retroviral protein hPEG10.
- Engineered non-viral particles for mRNA delivery into primary human cells.
- Performed molecular biology techniques including RT-PCR, qPCR, enzymatic digestions, and Western blotting.
- Contributed to the production and analysis of pseudo-viral particles and maintained primary cell cultures.
- Collaborated within a research team and presented results through scientific communication.

Education

Bioinformatics Master's Degree **September 2023 — July 2025**
UCBL1 — Claude Bernard Lyon 1 University *Lyon, France*

- Focus: Multi-omics data integration, spatial & single-cell transcriptomics, project management
- Grade = 15.15/20 (Rank = 4/17)

Molecular Biology Master's Degree – Immunology, Immunopathology & Immunotherapy **September 2021 — July 2023**
UCBL1 — Claude Bernard Lyon 1 University *Lyon, France*

- Focus: Translational cancer research, Onco-immunology
- Grade = 13.23/20 (Rank = 46/75)

Genetics Bachelor's Degree **September 2018 — June 2021**
UCBL1 — Claude Bernard Lyon 1 University *Lyon, France*

- Grade = 11.76/20 (Rank = 39/129)

PACES — Common First Year of Health Studies **September 2016 — June 2018**
UJM — Jean Monnet University *Saint Étienne, France*

- Level: Eligible (but not admitted due to *numerus clausus*)

Activities

Spring School on AI & Machine Learning in Biology and Health – AI4BioMed **April 7-9, 2025**

Piano and Guitar
- Practicing piano and guitar (for musical skills and creativity)

Sports
- Regularly practicing swimming and weight training (for discipline and fitness)

Language Learning
- Currently learning Mandarin Chinese; improving Spanish and Italian; practicing English fluency

Critical Thinking & Epistemology
- Studying philosophy of science, logic, and critical reasoning (to enhance analytical and problem-solving skills)