



# Valentin Goupille

Bioinformatician & Biologist

## Contact

✉ valentin.goupille@icloud.com

📍 Rennes, France

🌐 github.com/vgoupille

🌐 linkedin.com/in/vgoupille

🌐 valentingoupille.com

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## Skills

### Computational Biology

• Python	• R
• Bash	• HPC / Slurm
• Git	• Docker
• Neo4j	• SQL
• Nextflow	• uv / renv
• NGS Analysis	• scRNA-seq
• ML & LLMs	Data Visualization

## Life Sciences

Molecular & Cell Bio • Genetics • Wet Lab  
• HT Phenotyping • Pathology

## Soft Skills

Analytical Thinking • AI Productivity • Rigor & Organization • Empathy

## Languages

French: Native

English: Fluent (C1)

Spanish: Basic (B1)

## Interests

### Scientific Watch:

Medicine & Clinical sciences • AI in healthcare • World models • Single-cell & spatial omics

## Passions

🏃 **Fitness & Running:** Regular training

🌱 **Gardening & Nature:** Plant cultivation




# Seeking a Position in Bioinformatics

**Biologist and bioinformatician** leveraging **data science, machine learning, and AI** to unravel the complexities of biological systems. With a **Master's degree in Bioinformatics** and experience in high-throughput phenotyping and **single-cell transcriptomics**, I bridge the gap between computational tools and experimental reality. I am **actively seeking a bioinformatics position** to apply my expertise until my planned transition into **medical school in 2027**, where I aim to bring a strong analytical perspective to clinical practice and research.



## Professional Experience

- Clinical Observation – Surgical Oncology**  
**Clinique de l'Anjou, Angers** April 2026 (2 days)  
 Observed **consultations** and **breast cancer surgeries** in the **operating theater** (Dr. N. Paillocher).
- Clinical Observation – Medical Genetics**  
**CHU de Rennes, Rennes** April 2026 (2 weeks)  
 Observed **patient consultations, rare diseases MDT meetings, and bioinformatics genomic pipelines** (Dr. H. Bouazzaoui).
- MSc Research Intern – Bioinformatics & Microbial Ecology**  
**UMR 6553 ECOBIO, Rennes** Feb. – July 2025 (6 months)  
 Performed **single-cell RNA-seq analyses** to study **division of labor** within bacterial populations (*P. brassicacearum*) for the **ANR DIVIDE project**.
- MSc Research Intern – Plant Phenotyping & Growth-Defense Trade-offs**  
**UMR 1345 IRHS, Angers** Jan. – June 2024 (6 months)  
 Developed **semi-automated robotic imaging pipelines** to analyze apple tree **growth-defense trade-offs** and resistance to *Erwinia amylovora*.
- MSc Research Intern – Plant-Pathogen Interactions & Phytochemicals**  
**UMR 1345 IRHS, Angers** May – July 2023 (3 months)  
 **Phenotyped Arabidopsis thaliana** resistance to the pathogen *Alternaria brassicicola* in **phytochemical mutants** as part of the **ANR STRESS-PEPT project**.

## Education

- MSc in Bioinformatics**  
**University of Rennes 1 (Graduated with Honours)** 2024 – 2025 (1 year)  
 Intensive program in **computer science, statistics, machine learning, and interpretation of massive biological and omics datasets**.
- MSc in Plant Biology – Plant Health**  
**Faculty of Sciences, Angers (Graduated with Honours)** 2022 – 2024 (2 years)  
 Specialized in **plant immunity, molecular pathology, microbial ecology, genetics, and scientific communication**.
- BSc in Life and Earth Sciences – Plant Biology**  
**Faculty of Sciences, Angers (Graduated with Honours)** 2019 – 2022 (3 years)  
 Core foundation in **cell & molecular biology, genetics, microbiology, and plant stress responses**.

## Personal Projects

- LISA Medical Sheets – Neo4j & Quarto Book**  
**Python • BeautifulSoup • Neo4j • Quarto** 2025 – Present  
 Personal project: Developed a scraper using **BeautifulSoup** and API calls to parse **LISA medical sheets** (6th-year medicine curriculum), structuring the data into a **Neo4j database** and rendering it as a **Quarto book** for a clean book-like layout as a study aid (*ongoing development*).
- Fungi Image Analysis & Quantification**  
**Python • OpenCV • YOLO • Image Processing** 2025  
 Personal project: Created an image processing pipeline to identify **fungal species** and calculate their **surface area** in petri dishes. Implemented **data extraction** and **data augmentation** with **OpenCV**, and trained a custom **YOLO model** for automated detection.