ROGER CASALS FRANCH

rcasals@iris-cc.cat
Github

COMPETENCES

Teamwork
Proactivity
Leadership
Decisive
Adaptability

SOFTWARES

Python
Linux
R
mySQL
HTML

LANGUAGES

Catalan (Mother tongue)
Spanish (Mother tongue)
English (Proficient)
French (Basic)

Ph.D. BIOINFORMATICS | UVic-UCC
2023 - CURRENTLY

MSc BIOINFORMATICS AND BIOSTATISTICS | UOC-UB
2022 - 2023
- Average 8.7
- Honours in Statistical Inference

BSc BIOTECHNOLOGY | UAB
2018 - 2022
- Final Degree Thesis 9.
- Honours in Plant Physiology

BIOTECHNOLOGIST + BIOINFORMATICIAN

I am currently pursuing my Ph.D. thesis in bioinformatics at the UVic - UCC. My research focuses are on integrating single cell RNA-sequencing and single cell ATAC-sequencing data to construct Gene Regulatory Networks (GRNs) using cutting-edge technologies as SCENIC+. Additionally, I employ Deep Learning algorithms including Neural Networks and Variational Autoencoders. The application of these algorithms aims to predict gene expression changes in the transcriptome of specific cell types after some perturbation, to assess the influence of GRNs in these predictions.

IRIS-CC - UVIC | TECHNOLOGIST FOR THE BIOINFORMATICS AND BIOIMAGING RESEARCH GROUP
SEPTEMBER 2023 - CURRENTLY
- Documentation review
- Elaborating my Ph.D. thesis.
- Perform trasncriptomics data analysis based on collaborations with biomedical groups from Iris-cc institution.
- Develop bioinformatics tools related on single cell data analysis.

UVIC - VHIO | MASTER THESIS
MARCH 2023 - JULY 2023
- Documentation review
- Single cell RNA-seq data analysis
- Data analysis based on R, Python and Bash in the unit cluster environment with Slurm and Singularity
- Management of project documentation
- Participation in group presentations and bioinformatics journal clubs organised at VHIO.

EMBOTITS MONELLS | TECHNICIAN I+D
OCTOBER 2022 - AUGUST 2023
- Solved the needs of the commercial department.
- Carried out pilot tests and industrial tests.
- Generation of production documentation and formulation and training of plant personnel.
- Generation of technical and logistical data sheets for new products.
- Carried out product tastings.

EMBOTITS MONELLS | QUALITY TECHNICIAN
MAY 2022 - OCTOBER 2022
- Performed microbiological product testing.
- Carried out physico-chemical product testing.
- Carried out microbiological tests on processes and installations planned by the quality department.
- Carried out the microbiological and physiochemical tests requested by the R&D department (new products).
- Carried out the useful lives of new products.
- Managed and coordinated the analyses carried out in external laboratories.

UNIVERSITY INTERNSHIPS | DEPARTMENT OF CHEMICAL ENGINEERING UAB
SEPTEMBER 2021 - JANUARY 2022
- 3-HP production (acid of environmental chemical interest)
- Carried out fermentations (organic matter as a carbon source)
- Carried out Cloning, Screenings

CASA TARRADELLAS | QUALITY TECHNICIAN
JUNE 2021 - SEPTEMBER 2021
- Cultivated *Penycillium*. An eatable fungi.
- Worked in sterile conditions