# *ÀLEX MONFORT CONTINENTE*

### Bioinformatic and Biostatistic

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#### **RELEVANT WORK EXPERIENCE**

## BIOINFORMATICIAN AN BIOESTATICIAN | REMOTE FREELANCE (10/2024 - CURRENTLY).

- Develop custom Data Science and Data Analysis solutions tailored to business needs, including the development of a predictive model for Idiopathic Pulmonary Fibrosis (IPF) for IDIBELL.
- Provide strategic Al consulting to implement effective solutions aligned with company goals.
- Optimize processes and solve complex problems through advanced data analysis and AI technologies.

# BIOINFORMATICIAN AND BIOSTATICIAN | CENTER FOR RESEARCH IN AGRICULTURAL GENOMICS (CRAG) IN BARCELONA (03/2023 - 07/2023).

- **Developed a Natural Language Processing** model converting **protein sequences** into 1D structural sequences with an accuracy of **70%**. Utilized industry-standard tools like Keras, PyTorch, and Pandas.
- I conducted **over 20 iterations of training, testing, and data analysis of the neural network**, experimenting with different parameters to improve the efficiency and accuracy of the training and prediction processes.
- Collaborated on a project to optimize RNA sequences for **Chlamydomonas**, using predictive models and codon optimization.

#### **KEY PROJECTS**

# MASTER'S THESIS IN EVOLUTIONARY BIOINFORMATICS AND BIOSTATISTICS | MOLECULAR BIOLOGY RESEARCH GROUP UAB | DR. LUIS FRANCO SERRANO (11/2022 - 01/2023).

- Analyzed the evolutionary dynamics of moonlight proteins across species, investigating non-orthologous gene displacement using tools like PSI-BLAST and genomic databases (UniProt, NCBI).
- Conducted functional annotation and evolutionary predictions to map protein sequence conservation patterns.

#### OTHER WORK EXPERIENCE

## SECONDARY EDUCATION TEACHER | ESCOLA DEL TREBALL IN LLEIDA (02/2024 - 05/2024).

 Experience as a teacher in biology and technology, with a specialized focus on teaching biological and environmental databases. Integrating research projects into the classroom, fostering practical and applied learning.

#### **EDUCATION**

Master in Bioinformatics and Biostatistics - Universitat Oberta de Catalunya (UOC) | (2023).

• Area of interest: Machine Learning, Big data, Data analysis.

**Degree in Biology.-** Universitat de Girona | (2016 - 2020).

#### **TECHNICAL SKILLS**

- Programming & Data Analysis: Python (NumPy, Pandas, Scikit-Learn, Keras, Matplotlib), R, SQL, GithubCopilot.
- Bioinformatics Tools: BLAST, PSI-BLAST, Protein databases (UniProt, Ensembl, NCBI).
- Machine Learning & Al: TensorFlow, PyTorch, Transformers (LLM's), Predictive modeling, Hugging Face.
- Environments: Linux, Git, Conda, Docker.

#### **SOFT SKILLS**

- Critical Thinking
- Logical Thinking
- Teamwork
- · Problem Solving
- Time management
- Adaptability
- Resilience

#### **LANGUAGE**

- Catalan Native
- Spanish Native
- English Professional working proficiency