



# Louis Van Langendonck

Data Scientist & Physicist

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## Personal Profile

I am an international computer science student with a background in Physics intrigued by AI and its diverse applications. Currently, I am finishing my studies while interning as a Statistical Modeller at the Instituto de Ciencias del Mar (ICM).

As my studies are coming to an end, I am carefully looking for fundamentally challenging, research-oriented and useful projects in either the industry or academics. I am particularly interested in the mathematical and statistical structures at the root of modern techniques like deep learning and distributed systems.

## Education

**2018 > 2021 BA in Physics and Astronomy:** Free University Brussels (VUB): Magna Cum Laude - average of 8 out of 10

**2021 > 2023 Msc in Data Science:** Universitat Politècnica de Catalunya (UPC): current average of 8.65 out of 10

## Experience

**2022 > 2023 Research Intern Statistical Modeller:** CSIC Instituto de Ciencias del Mar (ICM) 'Centre of Excellence': Investigating the stability of a cutting-edge plankton simulation model under extreme climatic

perturbation stress. This experience highlights my interest in combining rigorous mathematical frameworks and powerful, real-world problems. This project is a result of being awarded the JAE Research Grant ICU.

## Technical Skills

**Programming Languages:** Python, Matlab, R, Javascript

**Data Management Tools:** SQL, library of NoSQL tools (MongoDB, Hbase, GraphDB, Neo4J, ...)

**Distributed Processing Tools:** Spark, Pregel, ...

**Applied Mathematics:** Strong Mathematical Base (Physics, Statistics, Computer Science)

**Machine Learning:** Algorithms and Libraries including Deep Learning

## Research Interests

**Applied Statistical Modelling:** Given my background in Physics, I love investigating and building abstract models of my surrounding, ideally combining it with machine learning. Some of my favourite application fields are in Physics, Biology and Earth Sciences.

**Deep Learning:** I am fascinated by the architecture of modern deep learning techniques like transformers and convolutional neural networks as well as its typical use cases: Natural Language Processing (NLP) and Computer Vision (CV).

## Language Skills

English	<div></div>
Dutch	<div></div>
French	<div></div>
Spanish	<div></div>