



# GIOVANNI MARRAFFINI

## EDUCATION

Master Data Science  2022 – 2024

Universidad de Buenos Aires

academic average: 9.30/10 GPA

BS Data Science  2019 – 2022

Universidad de Buenos Aires

academic average: 8.75/10 GPA

## TECHNOLOGIES

Python	Azure	OpenAI
Langchain	SQL	Pyserini
Langsmith	PyTorch	C++
R	Julia	Java
JavaScript	C	Haskell

## CORE SKILLS

### Data Science & ML

NLP, Data Analysis, Machine Learning, Supervised Learning, Artificial Neural Networks, Transformers, ViT.

### Statistical Methods

Statistical Models, Parametric and non-parametric tests, Monte Carlo Simulation, Statistical Programming.

### algorithm design paradigms

Divide and Conquer, backtracking, greedy algorithms, dynamic programming.

### Operations Research

Linear programming, optimization, graph theory, min cost max flow, GRASP, Simplex.


## LANGUAGES

- Spanish (Native)
- English (Proficient)

## OTHER

Full Stack Developer  2019 – 2022

- HTML, Javascript, CSS, Bootstrap, SQL, PHP.

Cryptocurrency miner  2019 – 2022

## Data Scientist | AI Engineer | NLP Specialist

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 giovanni-marraffini


## WORK EXPERIENCE

NLP Engineer  12/2023 – Present

Lumina Labs

Creating an AI to generate financial presentations from unstructured documents.

## PUBLICATIONS

The Greatest Good Benchmark: Measuring LLMs' Alignment with Utilitarian Moral Dilemmas  08/2023 – 07/2024

 Miami, Florida


EMNLP 2024 (Main conference)

Marraffini, G. , Cotton, A. , Hsueh, N. , Wisznia, J. , Fridman, A. , Del Corro, L.

## RESEARCH EXPERIENCE

Founder - Paper reading club  09/2023 - Present

Universidad de Buenos Aires

A paper reading club for data science and computer science students to stay updated on the latest research.  Club del Paper

Research assistant  02/2024 – 06/2024

Universidad de Buenos Aires

Analyze EEG data from subjects viewing images, comparing the timing of human visual processing with the activation layers in Vision Transformers (ViT).

NLP Researcher  06/2023 – 12/2023

Universidad de Buenos Aires

Researching for the Ministry of Labour on the impact of large language models (LLMs) on job roles and potential changes in employment due to technology.

## TEACHING EXPERIENCE

Teaching Fellow  06/2024 – Present

Universidad de Buenos Aires


Introductory and advanced algorithm courses for Data Science and Computer science.

Teaching assistant  03/2023 – 08/2024

Universidad Torcuato Di Tella

Teaching Graph Theory and Computational Business Applications.

## RELEVANT PROJECTS

Reranking for Retrieval-Augmented Generation (RAG)  02/2024 – Present

Collaborative Research

Working with NLP researchers to refine the ranking of results in RAG, enhancing the relevance and efficiency of the search algorithms.