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

CONFERENCES

ACL 2025 — 07/2025 — Vienna, Austria
Accepted Paper Main conference

KHIPU 2025 — 03/2025 — Santiago, Chile
Poster main conference

EMNLP 2024 — 11/2024 — Miami, Florida
Accepted Paper main conference

SAN 2024 — 10/2024 — Buenos Aires, Argentina
Poster main conference

TECHNOLOGIES

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

CORE SKILLS

Data Science & ML
LLM finetuning, NLP, RAG, Prompt Engineering, Data Analysis, Machine 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.

Data Scientist | AI Engineer | NLP Specialist

@ giovanni.marraffini@gmail.com ☎ +54-9-11-3430-7243
GioMarraffini   in giovanni-marraffini

WORK EXPERIENCE

Ssr. AI developer — 04/2025 – Present
Data voices

Developed and deployed efficient AI solutions for international companies with requirements ranging from real-time conversational responses to large-scale text-document reorganization.

NLP Engineer — 12/2023 – 05/2025
Lumina Labs

Developed a multi-agent pipeline for structured RAG in financial presentations. This involved fine-tuning LLMs, enhancing reranking algorithms for retrieval, prompt engineering, and implementing MLOps for deployment on Azure.

PUBLICATIONS

Shared Hierarchical Representations Explain Temporal Correspondence Between Brain Activity and Deep Neural Networks — 12/2025 — San Diego, California
Submitted to NeurIPS 2025

Lützow-Holm, E. , **Marraffini, G.** , Tagliazaucchi, E. , Slezak, D.

Are Optimal Algorithms Still Optimal? Rethinking Sorting in LLM-Based Pairwise Ranking with Batching and Caching — 07/2025 — Vienna, Austria
ACL 2025 (Main conference)

Wisznia, J., Bolaños, C., Gianolini, A., Hsueh, N., **Marraffini, G.**, Tollo, J., Del Corro, L.

The Greatest Good Benchmark: Measuring LLMs' Alignment with Utilitarian Moral Dilemmas — 11/2024 — Miami, Florida
EMNLP 2024 (Main conference)

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

RESEARCH EXPERIENCE

Research Engineer — 05/2025 – Present — Paris, France
Paris Brain Insitute

Applied state-of-the-art time-series prediction models to analyze large-scale EEG data from patients with neurodegenerative diseases

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

⚙ 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, python, PHP.

Cryptocurrency miner
📅 2019 – 2022

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.

Founder - Paper reading club
📅 09/2023 - 12/2024

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

TEACHING EXPERIENCE

Teaching Fellow
📅 06/2024 – 02/2025

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.