

Alejandro Leonardo García Navarro

RESEARCHER · LLM ENGINEER

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D ORCID

Published researcher and LLM engineer with strong problem-solving skills and a growing interest in applying AI to medicine.

PROFESSIONAL EXPERIENCE

Repsol, LLM Engineer Intern

Feb 2025 - Present

• Helped pioneer internal adoption of AI as one of the company's first LLM engineers, designing prompt strategies and deploying LLM agents in production environments.

Repsol, IT&D Business Partner Intern

Sep 2024 - Feb 2025

• Assisted in coordinating project milestones and deliverables while tracking and reporting departmental costs, supporting effective budget management and completion of objectives on time.

Universidad Carlos III de Madrid, Al Research Engineer

Sep 2023 - Present

- Built GAN and CTGAN models to generate synthetic network traffic with 80%+ similarity to real data.
- Benchmarked prompt strategies across 5 LLMs, increasing problem-solving accuracy by up to 30%.
- Designed a reinforcement learning algorithm for network routing, keeping latency spikes below 14.8%.

EDUCATION

Bachelor's degree in Data Science and Engineering

Sep 2021 - Jul 2025

Universidad Carlos III de Madrid

- Exchange year at Concordia University, Montreal (2023-2024) under the 'Santander Estudios' Scholarship.
- Awarded 3 government scholarships recognizing academic performance.
- **Relevant Coursework:** Databases, Data protection & cybersecurity, Machine Learning, Neural Networks, Computer Vision, Web Analytics, Artificial Intelligence.

SELECTED PUBLICATIONS

Introducing Large Language Models as the Next Challenging Internet Traffic Source, <u>Access to paper</u>

Apr 2025

On the Use of Large Language Models at Solving Math Problems: A Comparison Between GPT-4, LlaMA-2 and Gemini, Access to paper

Mar 2025

Designing Reliable Experiments with Generative Agent-Based Modeling:
A Comprehensive Guide Using Concordia by Google DeepMind, Access to paper

Nov 2024

Developing Cost-Effective Drones for 5G Non-Terrestrial Network Research and Experimentation, <u>Access to paper</u>

Sep 2024

SKILLS

Programming: Python, R, HTML, CSS, JavaScript, Node.js, Express.js

ML/AI Frameworks: Scikit-learn, PyTorch, Gensim, spaCy, NLTK, OpenCV, Pillow, TorchVision

Data & Infrastructure: SQL, NoSQL, PostgreSQL, MongoDB, Redis, Docker, Kubernetes

Languages: Spanish (Native), English (C1), French (C1), Catalan (B1)