GINES MOLINA

Data & Decision Engineer | PhD

molina-abril.github.io
+34 646 942 142
gines.moli@gmail.com
Galicia, SP
LinkedIn
molina-abril

WHO AM I?

Experienced Data Leader and PhD candidate in **Strategic Decision Support for SMEs**, with a strong background in **Data Science (MSc)** and **Telematic Engineering (BSc Hons)**.

+9 years of experience designing and leading advanced data architectures, pipelines, and AI-driven decision systems in Fintech, E-Learning, and Digital Marketing across Spain and the UK.

Proven ability to drive digital transformation through **data governance**, **process automation**, and **strategic, data-driven decision making**. Regular speaker in technical talks on using data for business growth and impact.

- Strategic Business Impact
- Data Architecture & Vision
- Data Analytics & Interpretation
- Data Governance & Compliance
- Communication & Collaboration
- Leadership & Team Management

git, Docker, BigQuery, dbt, SQL, Python, Airflow, Spark, Pydantic AI, DataHub, DuckDB, MongoDB, Polars, MLflow, Qdrant, DSPy

EXPERIENCE

2023 – Present
Staff Data Engineer - Data Lead — **Cliqpod - Digital Marketing**

- Cooperated with the CEO to integrate **data governance and management** into the **corporate strategy**, fostering a data-driven culture. Led a team of data analysts and scientists, managed hiring, prioritized new data features with developers, and facilitated discussions on **automation and growth**. Oversaw operations serving **1.5M users and 4.2M daily page views**.
- Implement a robust centralized **data infrastructure** following the **DataOps** approach, ensuring systematic data collection and enrichment from over **10 data sources**, handling **+20 TB of data processed** and **+1.5K query jobs daily**, by integrating Airflow & dbt within GCP tools.
- Propose **innovative & cost-effective technology solutions** tailored to each specific use case, utilizing **incremental data loading** approaches, implementing a cache layer, partitioning, & clustering techniques to achieve a **fivefold improvement** in execution times, **reducing costs by +80%**.

2022 – 2023
Senior Data Engineer — **LoveToKnow - Digital Marketing**

- Achieved streamlined data infrastructure design measured by improved data governance & quality through **standardizing ETL processes across all teams**, enhancing company operations, establishing a single source of truth, and **reducing BigQuery costs by +70%**.
- Fostered enhanced collaboration across teams through DataHub, a data catalog tool that enables **observability of business assets**, error monitoring, and traceability via data lineage tools while offering flexibility in data models through version control.
- Contributed to building complex data products by modelling over **10M client-generated events per hour**, focusing on Core Web Vitals and Ad Revenue metrics, and providing **comparative analyses of traffic patterns** for ad providers and advertisers on a YoY, MoM, and WoW basis.

2020 – 2022
Software Engineer / Data Engineer — **Sponge - E-learning**

- Conducted an innovative service performing data modeling, implementing ETL processes, and providing a **powerful xAPI-driven Learning Record Store** that dives deep into data. The LRS **tracked learner engagement** and highlighted particular areas of difficulty the learners experienced.
- Developed a microservices-based Learning Management System, driving **Test-Driven Development**.

2019 – 2020
Analytics Application Developer — **Inbest.ai - Fintech**

- Engineered a customer analytics system to analyze financial situations and behaviors through large volumes of critical data, measuring the **impact of new features on how customers manage their finances**, while also orchestrating the migration from R + Shiny to Python + Dash, **improving execution times by 10x** with the addition of a **cache layer** and a **signaling system**.

2017 – 2018
Cloud Solutions Developer — **ENCAMINA - Microsoft Partner**

- Experienced in data modeling, designing **comprehensive reports** & **real-time dashboards** in Power BI.

EDUCATION

2025 2028 **PhD in Network and Information Technologies (Industrial Doctorate)** **Open University of Catalonia**
Addressing the black-box problem in AI-driven strategic decision-making for SMEs. Developing a multi-agent evaluative framework that treats decision-making as hypothesis testing rather than providing direct recommendations, guiding users through structured questioning that challenges assumptions and explores alternative scenarios. Treats data as intentional artifacts designed for evidence-based reasoning and continuous learning, emphasizing human-AI complementarity as critical thinking partner. Applies Operational Research and Knowledge Engineering principles to develop Decision Intelligence systems for SMEs, validated through real-world collaboration with a digital marketing enterprise. More at: **molina-abril.github.io**

2020 2022 **MSc in Data Science** **Universitat Oberta de Catalunya**
Investigate how to extract valuable insights from large datasets, covering data capture, preprocessing, storage, and advanced analysis. Strongly emphasize machine learning, big data analytics, natural language processing, social media analytics, and deep learning. Additionally, proficiency was acquired in utilizing the latest software and tools, advanced statistics, computational techniques, artificial intelligence, and data visualization, enabling the drive for innovative solutions.

2012 2017 **BSc (Hons) in Telematic Engineering** **Technical University of Cartagena**
Specialisation as a telecommunications engineer in the area of networks and telematic systems. Final project Top-grade and Best Final Project Award from ODILO in Web Services & Applications category. Communication Protocols Expert Intern in Casacom Solutions AG.

PROJECTS & SCIENTIFIC ARTICLES

2025 **Towards an Evaluative AI Framework for Hypothesis-Driven Strategic Decision-Making in SMEs**
Evaluative AI paradigm where AI actively assists humans in SME decision-making through evidence-based co-reasoning, hypothesis testing, and context-aware reasoning. **IDEAL 2025** - **LNCS Springer**.

2025 **Strategic Decision-Making in SMEs: Review of Heuristics & ML for Multi-Objective Optimization**
Review of optimization techniques (heuristics, metaheuristics, ML) for SME decision-making, addressing adoption barriers and providing practical frameworks despite resource constraints. Journal: **Computation**

2023 **Towards a Framework Driven by Use Cases in Data-heterogeneous Environments** **JISBD 2023**
A framework that enables effective data consumption and analysis over time by defining data use cases to drive enablement, discovery, and storage.

2022 **MSc. Dissertation** **MSc in Data Science**
Evaluation of wireless data processing algorithms for indoor location and occupancy estimation.

2019 2022 **WishDOM - Digital Transformation Consulting** **WishDOM - Freelance**
SME digital transformation: talks at innovation centers, web platforms, cloud automation, and analytics.

2020 2021 **Web Scrapping & Data Mining in LinkedIn** **Mark: A - MSc in Data Science**
Analysis using web scraping techniques to gather pertinent data scientist job offers from LinkedIn.

2019 2020 **Who benefits from open banking?** **Business School - University of Edinburgh**
Analysis of payday loans' impact on finances and consumer trends.

2018 2019 **BSc. Dissertation - Financial Analytics Platform** **Honours and award-winning - BSc (Hons) in Telematic Engineering**
Data analytics platform automating financial planning services. News coverage and repository

2018 **Mortality of NBA Players - Research Study** **Business department - Technical University of Cartagena**
Coder and data collector using web scraping methods to analyze risk factors in player mortality.

2015 2018 **EncuentraSport - Sports Community Platform** **Business department - Technical University of Cartagena**
Coordinated development team. Platform for training area rental and data-driven public space optimization.

2016 2017 **TopMovie - Recommendation System** **Top Grade - BSc (Hons) in Telematic Engineering**
Movie platform implementing collaborative filtering algorithms based on user reviews and interactions.

NON-PROFIT

Promoting social causes, including combatting child poverty and supporting rare disease research with **PrometeoGrid**. Participant in **Santander Bank Program for young entrepreneurs**. Co-founder of **TechClub UPCT**, organizing talks and workshops to share knowledge and drive innovation projects at the university. **Radio guest speaker** in "Onda Regional de Murcia". **Microsoft Student Partner**.

LANGUAGES

Spanish - Native
English - CEFR B2/C1

16th of 1200 — IoT Spartans International Challenge — Competition worldwide and across 10 universities

1st Best Final Project Award — Web Services & Applications Category from ODILO