



Cesare Scalia, PhD

Lead Data Scientist

| Causal ML & AI Systems

- Mar, 1991
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Languages

- Italian (native) ●●●●●
- English (C2) ●●●●●
- French (A2) ●●●●●

Hard Skills

- AI Agents & MCP
- LLM & NLP
- LLM tooling & agents
- Causal ML
- Machine & Deep learning
- Graphs & Transformers
- Data analysis & Modelling

Soft Skills

- Problem-Solving ●●●●●
- Curiosity ●●●●●
- Leadership ●●●●●
- Communication ●●●●●

About Me

Lead Data Scientist at Life360, responsible for causal measurement across advertising campaigns reaching millions of geolocated users. A decade applying machine learning, causal inference, NLP and graph analytics across energy (Eni), defence (Leonardo), semiconductors (STMicroelectronics) and astrophysics research (INAF, PhD). Design and deploy AI-automation systems—custom agents, Claude Code workflows, MCP integrations—that compress analytical cycle time across the function. PhD in Physics (Catania; visiting Armagh Observatory), post-graduate master in Economic Intelligence (IASSP). Italian, English and French; comfortable translating quantitative analysis into decisions for executive and board audiences.

Working Experience

- 2025 – present **Lead Data Scientist** Life360
Design causal measurement pipelines and agentic workflows for Life360's advertising business, serving ad campaigns across millions of geolocated users.
 - Agentic workflows: custom Claude agents with tool-use and MCP servers (Databricks, Atlassian) embedded in daily analytics, data-QA and pipeline-triage operations
 - Causal ML & experimentation: uplift/CATE models, geo-experiments and synthetic-control incrementality for multi-million-user ad campaigns
 - AI enablement: author reusable Claude skills and Claude Code workflows; lead firm-wide AI adoption across analytics teams with internal standards, onboarding playbooks and office hours
 - 2020 – 2025 **Senior Data Scientist** Eni
Led a small team developing AI-driven algorithms for reputation analysis and measurement. Managed projects integrating generative AI, NLP, and Transformers to enhance data-driven decision-making across computing, communication, and public relations sectors. Also coordinated with external suppliers to deliver high-quality, innovative solutions:
 - Advanced Analytics: reputation KPIs, metrics for online/offline visibility, micro-audience analysis with graphs and BigQuery
 - ML & NLP: fine-tuned transformers for specific classification tasks; LLMs for data generation, summarization, information extraction and Q&A; sklearn models for classification and anomaly detection
 - Technical Leadership: supervised cloud dev, ETL, and AI-integrated reporting (AWS, SageMaker).
 - OSINT: web scraping, graph techniques and dynamic topic modeling with BerTopic, GraphTopic and LLM agents
 - 2023 – 2025 **Data Science external consultant (part-time)** fantix.ai
Created a Graph Machine Learning algorithm for multimodal link prediction, evaluated digital-twin synthetic models and scaled look-alike models to big-data applications
 - 2018 – 2020 **Earlier roles** ST Microelectronics, Leonardo, INAF
Device Engineer at ST Microelectronics (yield analytics on semiconductor processes); Data Science Intern at Leonardo (PCA on stochastic systems, real-time object detection); Astronomer at INAF on the Cherenkov Astri-Horn telescope prototype.
- ## Education
- ### Postgraduate Training
- 2022 – 2023 **Postgraduate Master in Economic Intelligence** IASSP – Institute for Advanced Strategic and Political Studies
Thesis: “The strategic role of algorithms: a geopolitical and corporate point of view”
 - 2014 – 2017 **Ph. D. in Physics** University of Catania
Observations, instrumentation, data reduction, parallel numerical computing, statistical analysis, inversions and machine-learning / genetic-algorithm models—all within the field of stellar spectropolarimetry.
 - 2015 – 2016 **Visiting Ph. D.** Armagh Observatory
Implementation of the ADA code “SpectroPolarimetric Analysis by Radiative Transfer Inversion”.
- ### Study
- 2012 – 2014 **M.Sc. in Physics: 110/110 & honors** University of Catania
Thesis: “Catania Astrophysical Observatory Spectropolarimeter: Science Verification”
 - 2009 – 2012 **B.Sc. in Physics: 110/110 & honors** University of Catania
Thesis: “Harmonic analysis of a Kepler light curve using the least-squares method”
 - 2003 – 2009 **High-school diploma in Accounting & Business: 100/100 & honors**
I.I.S. G. De Felice Giuffrida-Olivetti

Cesare Scalia, PhD

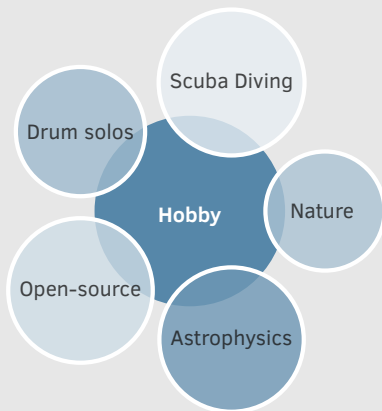
Lead Data Scientist

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Tech Stack

- </> Python, SQL, Spark
- Databricks, BigQuery
- AWS, SageMaker
- PyTorch, scikit-learn
- Git, Atlassian, MCP

Interests



Memberships



Rotaract



AVIS



Gruppo Astrofili Catanesi

Other learning & honors

2023	Professional Scrum Master™ I (PSM I)	Scrum.org
2021	Build, Train, and Deploy ML Pipelines using BERT	deeplearning.ai / Coursera
2021	Pre-Acceleration Program	Bocconi 4 innovation
2021	Natural Language Processing Specialization	deeplearning.ai / Coursera
2018	Deep Learning Specialization	deeplearning.ai / Coursera
2009	National Register for Excellence	Ministry of Education and Research

Projects

2021 – 2022	Rarethee Developed a Bayesian decision chain for an interactive AI-based digital medical device designed to support pediatricians and family doctors in the early diagnosis of rare diseases.
2021 – 2022	Ittinsect - Only catch the fish you eat Project aimed at reducing overfishing by decreasing the demand for wild-caught fish in animal feed. Conducted industrial, business, and CO2 impact analysis for a company valued at over 2 million euros.
2020	Drugs and help for Lebanon Leading as Italian Rotaract country representative the internationalization of this project which led to the delivery of a large quantity of drugs to Lebanon from Sicily during the pandemic period after the explosion of 4 August 2020

Publications

2024	Uncovering hidden communities in bipartite graphs	Eni digiTALKS C. Scalia
2022	Prompt and predict: what can you do with Large Language Models?	Eni digiTALKS C. Scalia
2024	Building a Trusted Network of Energy Experts on Twitter through Graph Traversal and Active Node Classification	Int. J. of Computer Science & Mobile Applications V. De Leo, ..., C. Scalia, ...
2022	Constraints on the structure and seasonal variations of Triton's atmosphere from the 5 October 2017 stellar occultation and previous observations	A&A J. Marques Oliveira, ..., C. Scalia, ...
2020	Long-term photospheric instabilities and envelopes dynamics in the post-AGB binary system 89 Herculis	MNRAS M.Gangi, ..., C. Scalia, ...
2019	Detection of Linear Polarization in the Metal Lines of 89 Herculis	ASPSC M.Gangi, ..., C. Scalia, ...
2019	Measuring the Effective Magnetic Field of Cold Active Star epsilon Eri Using the Slope Method	ASPSC C. Scalia, ...
2018	The "Second Solar spectrum" and the polarised metal lines in emission of the post-AGB binary 89 Herculis	MNRAS F. Leone, ..., C. Scalia, ...
2018	The long-term variation of the effective magnetic field of the active star ϵ Eridani	Proc. IAU C. Scalia, ...
2017	A Method to Measure the Transverse Magnetic Field and Orient the Rotational Axis of Stars	Astronomical Journal F.Leone, C. Scalia, ...
2017	The multi-line slope method for the measure of the effective magnetic field of the cool stars: an application to the solar like cycle of ϵ Eri	MNRAS C. Scalia, ...
2017	A spectroscopic study of the open cluster NGC 6250	MNRAS A. J. Martin, ..., C. Scalia, ...
2016	Spectroscopic study of the HgMn star HD 49606: the quest for binarity, abundance stratifications and magnetic field	MNRAS F.Leone, ..., C. Scalia, ...
2016	A Method to Calibrate the High-resolution Catania Astrophysical Observatory Spectropolarimeter	Astronomical Journal F.Leone, ..., C. Scalia, ...

Schools and conferences

2023	Machine Learning Prague	Czech Republic Poster: "Measuring Corporate Reputation with BERT-based Transformers"
2018	IAUS 340: Long-term datasets for solar and stellar magnetic cycles	India Invited talk: "The long-term variation of the effective magnetic field of the active star ϵ Eridani"