Felice Antonio Merra, Ph.D.

(+39) 340 42 13 560
E-mail: merrafelice@gmail.com
Website: https://merrafelice.github.io
LinkedIn: https://www.linkedin.com/in/feliceantoniomerra

About Me

Senior Data Science Manager leading Cognism's applied science team (7 scientists), with end-to-end ownership of research strategy, system design, and support in production delivery of AI solutions used by real customers.

- Tech leader and responsible for the delivery of ML systems in production at Cognism and Amazon, including:
    - Multi-agent architectures, RAG and vector-based retrieval systems, and deep learning models for ranking and classification. Examples of shipped ML systems: a ranker in production with statistically significant customer impact on relevancy (>10 bps) and business metrics (not-sharable) in Amazon Search; 2x accuracy improvement on two DL classification models in Cognism; 2.2x coverage increase in an embedding-based matching system.
    - Systems designed under latency, scalability, and product constraints, and shipped to production, e.g., improved speed 11x from ideation to productionalization for an embedding-based matching system.
- Industrial and academic experience in Information Retrieval, Recommender Systems, LLMs, and adversarial ML in large-scale settings.Experience with real-world constraints (data sparsity, scale, evaluation noise, safety).
- PhD in Computer Science Engineering (cum laude) with a dissertation on Adversarial Machine Learning for Information Retrieval.
- 40+ publications across academia and industry, including:
    - Top-tier venues: ICML (1), SIGIR (5), RecSys (3), WWW (2), CIKM, WSDM, ECIR, ESWC
    - Journals: ACM Computing Surveys, ACM TORS
- Direct ownership of impactful LLM research and systems, including:
    - Lead Scientist for a worldwide Amazon Q feature (i.e., owner of the design, coordination between scientists and ML OPS engineers, and E2E evaluation).
    - Driver for the delivery of Orion in Cognism (link).
    - Senior Researcher for an ICML'25 accepted paper titled "Hyperband-based Bayesian Optimization for black-box prompt selection".
    - Corresponding Author of the SIGIR'25 Best Short Paper titled "Do LLMs Memorize Recommendation Datasets? A Preliminary Study on MovieLens-1M".
- Leadership & execution:
    - Since December 2024, Science Manager at Cognism leading a team of 7 scientists.
    - 1 year as Scientific Technical Leader on Amazon Q (3+ scientist and 3+ engineers)
    - 2 Applied Scientist Interns mentored while in Amazon.

Job Experience

Cognism.com, Remote (IT) - *Senior Data Science Manager*

From December 2024

- Manager of a team of 7 scientists working on multiple initiatives across the full company with projects involving the CPO and CTO too.
- Delivered in production a multi-agent LLMs system serving millions of requests per month.
- Delivered transformer based quantized models for ranking and retrieval in large scale systems (tens ppt improvement wrt baseline).
- Coached less senior and tenured scientists to grow and become agent-driven scientists.
- Promoted to Senior starting from 1st February 2026.

Amazon, Berlin (DE) - *Applied Scientist*

From November 2021 to November 2024

- Scientific Leader for large projects with WW Teams/Contributors.
- Development of GenAI solution for Amazon Search (i.e., Rufus) and AWS (i.e., Amazon Q).
- Development and production testing of AI/ML techniques for Amazon Search improvement within the IR and NLP domains.
- Tech leader in end-to-end projects, i.e., from the proposal to the implementation and launch production.
- Point of contact in conducting 3+ projects with international teams (EU, Japan, India, and the US).
- Interviewer for science positions.
- Mentor for junior scientists.

Amazon, Berlin (DE) - *Junior Applied Scientist*

July 2020 - October 2020

- Development of a state-of-the-art solution for filter recommendation used in Amazon.com (with 1 publication at WWW).

Politecnico di Bari, Bari (IT)- *Ph.D. Student*

November 2018 - October 2021

- Scientific consulting in projects with public and private partnerships to realize scientific prototypes and deliverables.

Knowledge Media Institute, Milton Keynes (UK)- *Visiting Researcher*

April 2018 - August 20218

- Implementation of an Artificial Intelligence prototype for anonymizing user data for a British healthcare company.

Fincons Group, Bari (IT) - *.Net Junior Developer*

September 2016 - October 2018

- Management and development of an inventory management Web App for an international client.

Education

Politecnico di Bari, Italia - *Ph.D.*

Graduated cum Laude

November 2018 - October 2021

Dissertation: "Adversarial Machine Learning in Recommender Systems".

Politecnico di Bari, Italia - *Master Degree in Computer Engineering*

110 cum Laude

December 2016 - October 2018

Politecnico di Bari, Italia - *Bachelor Degree in Computer Engineering*

110 cum Laude

October 2014 - July 2016

Awards

- [MIT-IBM Watson AI Lab best paper award](): Understanding the Effects of Adversarial Personalized Ranking Optimization Method on Recommendation Quality at AdvML@KDD 2021.
- [Best Short Paper Runner Up](): A Formal Analysis of Recommendation Quality of Adversarially-trained Recommenders at CIKM 2021.
- Best Short Paper at SIGIR 2025: Do LLMs Memorize Recommendation Datasets? A preliminary study on MovieLens 1M.