Felice Antonio Merra, Ph.D.

Science Manager

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SKILLS

6 years of experience developing machine learning applications in industrial and academic environments with a particular focus on Recommender Systems, **Search Engines**, **NLP**, and **Generative AI** (e.g., Claude, GPT, Llama).

Regarding **GenAI**, I have been part of the team developing **Rufus,** a new generative AI-powered conversational shopping experience, REF) and, since May 2024, I have been working as an Applied ML Scientist in AWS for the development of **Amazon Q**, the generative AI–powered assistant for accelerating software development (REF).

Scientific Tech Leader in industrial projects involving the coordination of the scientific deliverables across multiple teams spread out WW, science disambiguation documents, relative proposal of models to solve real-work problems, offline experimentation, **end-to-end implementation**, A/B testing, and **international launch.**

I led the launch of multiple worldwide ML-based solutions with a large business impact.

Deep knowledge of **Python** and **PySpark.** Use of other frameworks and languages, e.g., Java and .Net, for deploying AI/ML solutions and processing and managing big data. Attitude to going deep on data with hands-on activities to identify potential new projects and drive innovation based on measurable observations.

Expertise in the use of multiple **AWS products** for ML applications, including but not limited to AWS Lambda, AWS Sagemaker, AWS Step Functions, Sagemaker Pipeline, EC2 instances, and EMR Clusters.

Experience using **supercomputers** (Marconi 100) for multi-GPU and multi-node training jobs.

Experience **managing and interviewing resources**: scientists, SDEs, MLEs.

Prolific publication activity with **30+ scientific papers** to conferences and top-tier journals (A and Q1).

Fluency in **English**.

EXPERIENCE

Cognism.com, Remote (IT) *- Data Science Team Lead*

From December 2024

- Manager of a team of 5+ scientists working on multiple initiatives across the companies.

Amazon, Berlin (DE) *- Applied Scientist*

From November 2021 to November 2024

- Scientific Leader for large projects with WW Teams/Contributiors.
- 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 IR and NLP domain.
- 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 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