Paolo Cristini

DATA SCIENTIST

✉ paolo.cristini@cognizant.com

📞 +44 77 6044 9423

in https://www.linkedin.com/in/paolocristini82

PROFILE SUMMARY

Paolo is a programmer with a previous 10-year experience in finance and investment consulting for institutional investors. As a data scientist, he is mainly involved in Machine Learning and Data Engineering projects.

Paolo has an excellent teamwork attitude and solid project management skills. Also interested in distributed training techniques and graph databases.

Areas of expertise

- Python
- Machine Learning
- Data Engineering
- AWS
- Databricks

WORK EXPERIENCE

cognizant

07/2021 – Present

Senior Data Scientist

Focused on Data Science & Data Engineering within Cognizant's Artificial Intelligence & Analytics (AI&A) team

NetworkRail

05/2022 – 11/2023

Senior Data Scientist

R&D data science team – delivered Machine Learning models to predict issues on network rail assets, directing more efficient engineers' interventions:

- Developed a quality index of the railway to monitor and predict potential malfunctions
- Enhanced model to determine possible need for intervention on track circuits devices. An LSTM model was proposed to replace the previous random forest classifier. Azure Databricks distributed computing environment has been leveraged to train deep learning model via Horovod

(skills: **Databricks**, **MLflow**, **PySpark**, **Random Forest**, **LSTM**, **Azure DevOps**)

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10/2021 – 04/2022

AWS Data Engineer

Data engineering team – full-stack ELT pipelines management:

- Developed Terraform workflows to ensure data ingestion, from a vast variety of data sources and formats, into S3 data lake, via AWS Lambda functions, orchestrated with CRON jobs
- Using Snowflake as data warehouse, created and managed scheduled tasks to clean, organise, and combine data from different sources, to generate meaningful information for business
- Created and managed data MARTS, serving several BI dashboards on Tableau Server

(skills: **AWS Lambda**, **Amazon S3** and **CloudWatch**, **Terraform**, **Python**, **Snowflake**, **SQL**, **Jira**)

freelance

10/2020 – 04/2021

Data Scientist

Georeferenced Automated Valuation Model (obtained ~5% average MAE on test set); **Fine wine trading** (applying financial risk management best practice to oversee wine trading platform activities)

(skills: **Python**, **Jupyter Notebooks**, **pandas**, **plotly**, **SciPy**)

Prometeia S.p.A.

11/2007 – 02/2017

Senior Financial Analyst

Leading the developer's team in charge to delivery LDI solutions.

- **Programming** - developing software for Liabilities Driven Investment framework analysis. Analytical approaches included Monte Carlo simulations and traditional Machine Learning techniques

- **Advisory** - delivering strategic asset allocations for institutional investors, in order to reach income targets and hedging risks, especially due to real rate and inflation rate

- **Asset under advisory** increased from 8 to 30 bln EUR

EDUCATION DETAIL

Master of Science
2019 - 2020

MSc in Business Analytics
- Imperial College Business School
- Final Degree Project: "Real Estate Analytics: residential prices and context data"

Master of Science
2004 - 2007

MSc in Finance
- University of Bologna
- Final Degree Project: "CPPI: traditional approaches and recent developments within the financial engineering industry. A pricing study."

CERTIFICATIONS & COURSES

- AWS Certified Solutions Architect – Associate (2022)
- AWS Certified Machine Learning – Specialty (2021)
- AWS Certified Cloud Practitioner (2021)
- Certified Financial Risk Manager (FRM)
- MathWorks Certified MATLAB Associate

Coursera:
- Deep Learning Specialization
- DeepLearning.AI TensorFlow Developer Specialization
- Machine Learning

Udemy (most recent):
- Deep Learning: Advanced Computer Vision (GANs, SSD, +More!)
- AWS Automation with boto3 of Python and Lambda Functions
- AWS Serverless APIs & Apps - A Complete Introduction

LANGUAGES

English ●●●●●
Italian ●●●●●
Spanish ●●●●○

OUTSIDE OF WORK

Rachmaninov lover, as well as the sounds of brass. If I am not at my desk coding, you can find me spending nights at cinemas, at theatre for some symphonic music events, or just making fresh pasta with friends.