

# ALESSIO CRISAFULLI CARPANI

STATISTICIAN · DATA SCIENTIST

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## About Me

Throughout my studies in statistics and data science, I developed an insatiable curiosity to explore and leverage data to drive meaningful insights and informed decision-making. Thanks to my enthusiasm and commitment, I am very confident in solving every task that I aim to accomplish. I have a proactive attitude, so I can easily embrace responsibilities and face new problems. I feel comfortable in every context and enjoy interacting with people from different backgrounds and I am always looking forward to new experiences and keep learning.

## Work Experience

### European Central Bank

Frankfurt am Main, Germany

RESEARCH ANALYST IN STATISTICS & DATA SCIENCE, MONETARY & ECONOMIC STATISTICS DIVISION

Mar. 2024 - Current

- Responsible of bank interest rates statistical production, operating IT processes, drafting of press releases, management of resources
- Appointed to join a Task Force for the Working Group on Statistical Communication on data privacy

TRAINEESHIP IN STATISTICS & DATA SCIENCE, MONETARY & ECONOMIC STATISTICS DIVISION

Mar. 2023 - Feb. 2024

- Country analysis and production of monetary statistics and banking indicators, involving time series analysis, methodology, compilation and dissemination.
- IT system migration of business processes for statistical production infrastructure, requiring tests and developments using R, Python.
- Development of new tools improving analysis and production: RShiny dashboard, external Tableau dashboard and interactive quality reports.

### Italian National Institute of Statistics (ISTAT)

Rome, Italy (Remote)

RESEARCH PROJECT

Jun. 2023 - Nov. 2023

- Privacy Enhancing Technologies & Privacy Machine Learning
- Synthetic data generation using generative models with differential privacy (GAN and PATE)

### Renault Group

Paris, France (Remote)

RESEARCH PROJECT

Oct. 2022 - Feb. 2023

- Deep Learning Techniques for Text Classification on Surveys
- NLP strategies (Few and Zero-Shot) with Hugging Face Transformers, using BERT models

## Education

### Alma Mater Studiorum - University of Bologna

Bologna, Italy

MSC STATISTICAL SCIENCES (110/110 CUM LAUDE) (IN ENGLISH)

Oct. 2021 - Dec. 2023

- Thesis:** *Privacy-Enhancing Technologies for Synthetic Data Creation with Deep Generative Models*
- Degree awarded from Eurostat: "European Master of Official Statistics"
- Project:** *Risk Assessment of COVID-19 cases* · Time series EDA, decision tree using Python

### École Nationale de Statistique et Analyse de l'Information (ENSAI)

Rennes, France

ERASMUS+: MSc SMART DATA SCIENCE

Sept. 2022 - Feb. 2023

- Machine Learning, Deep Learning and Cloud Computing
- Project:** *Parallel Computing with R and Python*
- Project:** *French Gas Prices* · Big Data Processing with Spark, Hadoop

### Universidad Complutense de Madrid

Madrid, Spain

ERASMUS+: ML & DATA MINING

Jan. 2022 - July. 2022

- Project:** *IBM Employee Attrition* · ML on classification task using R, trees, ensemble methods, SVM
- Project:** *WebScrape & Sentiment Analysis with Python*
- Project:** *IBM-Db2 Database Management System* · Built relational databases from time series tables and made

### Universidad de Sevilla

Seville, Spain

ERASMUS+: STATISTICS

Aug. 2020 - July. 2021

- Applied Statistics, Economics and Decision Theory

### Alma Mater Studiorum - University of Bologna

Bologna, Italy

BSC STATISTICAL SCIENCES, STATS&MATHS (108/110) (IN ENGLISH)

Sept. 2018 - Oct. 2021

- Probability, Statistics, Inference, Linear Algebra, Calculus, Time Series, Econometrics and Informatics
- Thesis:** *Towards Digitalization Of Governments And The Effects Upon Corruption*

## Skills

<b>Languages</b>	Italian ( <i>Mother tongue</i> ), English (C1+), Spanish (C1+), French (C1)
<b>Programming</b>	R, Python, SQL, Bash, UNIX
<b>DataOps</b>	Spark, Hadoop, YARN
<b>Databases</b>	Impala, Hive, MySQL, MongoDB, DB2, Neo4J, Oracle
<b>Others</b>	Git, Github, HTML, CSS, $\LaTeX$ , JavaScript (basic)
<b>Software</b>	Tableau, FAME, Qlik, SAS Miner, STATA, Gretl, G Suite, Office 365

## Publications

### Data and COVID-19: Comparing Excess Mortality Data

2022

DATA & POLICY (CUP) 2632-3249

- Built an *R Shiny dashboard* to analyze WHO mortality data