

Nicola Cerutti

London, UK

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Summary

Data scientist and software engineer with a Ph.D. in economics and 10+ years of experience in causal inference, conducting and designing experiments, analysing and visualising complex datasets, and presenting findings in academic, institutional, and business settings. 5+ years of experience in data science, machine learning, neural networks for natural language processing (NLP). Solid coding, statistics, and econometrics background, passionate about AI and its applications in economics, finance, and insurance.

Experience

Bank of England

London, UK

LEAD SOFTWARE ENGINEER

Jan. 2025 -

- Software engineer building **prototypes and proof-of-concepts** for the digital pound.
- Helped designing and building web APIs using **Django REST Framework**.

Oasis Loss Modeling Framework

London, UK

SENIOR DATA SCIENTIST

Oct. 2023 - Nov 2024

- Working with a team of 20+ between software developers, professionals from the insurance industry and academics, developing and maintaining an **open source** catastrophe modelling platform.
- Developed and optimised data pipelines in **Python**.
- Improved the performance of **Monte Carlo simulations** modelling catastrophic events.
- Converted legacy **C++ code to Python** and, exploiting numba and numpy, improved on the original performance (25%).

Mercator Research Institute on Global Commons and Climate Change (MCC)

Berlin, Germany

POSTDOCTORAL RESEARCHER (2021-2022) - GUEST RESEARCHER (2022-2023)

Feb. 2021 - Dec. 2023

- Produced code in **Python and R** for data wrangling, analysis (regressions, hypothesis testing), and visualisation for 7 scientific articles.
- Used machine learning for systematic reviews, **time-series forecasting and clustering**.
- Conducted **field and web experiments** on risk attitudes, preferences, gender, and behaviour under uncertainty.
- Collected policy descriptions from online databases and implemented **machine learning** (NLP) methods to classify them.

Berlin School of Economics and Law

Berlin, Germany

LECTURER

Sept. 2019 - Dec. 2020

- Taught the course in **Environmental and Natural Resource Economics** with a course rating of 5/6.
- Supervised M.Sc. Theses and exchange students.

University of Verona

Verona, Italy

POSTDOCTORAL RESEARCHER

Oct. 2018 - May. 2019

- Employed **web scraping** techniques to gather data on the public discourse on sustainability and analysed it with **Natural Language Processing** (NLP) methods, including classification with transformers and topic modelling.
- **Co-managed** the work of a consortium of five universities in a H2020 co-fund project (SUSCHOICE).

Joint Research Centre of the European Commission

Ispra, Italy

TRAINEE

Jun. 2017 - Nov. 2017

- Collaborated in the testing and deployment of a large-scale **mobile app**-based experiment.
- Performed quality control, preliminary data analysis, and **clustering of GPS tracking data**.

Education

Data Science Retreat

Berlin, Germany

DATA SCIENCE BOOTCAMP

Nov. 2022 - Feb. 2023

- Full-time bootcamp in data science with a focus on neural networks and machine learning.
- Topics and tech stack: Python, Scikit-learn, PyTorch, Docker, AWS, Git, CI/CD, NLP, Computer Vision.
- Microsoft Azure AI Fundamentals Certified.

Jacobs University

Bremen, Germany

PH.D. IN ECONOMICS

Sept. 2012 - Oct. 2016

- My thesis consisted of three laboratory experiments, coded with z-tree and Java and analysed with R and STATA.

University of Turin

Turin, Italy

BA IN COMMUNICATION SCIENCES, MA IN SOCIOLOGY (110/110)

Sep 2005 - Jul. 2011

Publications

- Cerutti, N. A false sense of security? Face masks and social distancing. (2024). In Costa-Font, J., and Galizzi, M.M. (eds.). *Behavioural Economics and Policy for Pandemics*. Cambridge University Press.
- Cerutti, N., Lamb, W. F., Crippa, M., Leip, A., Solazzo, E., Tubiello, F. N., and Minx, J. C. (2023). Food system emissions: a review of trends, drivers, and policy approaches, 1990–2018. *Environmental Research Letters*, 18(7), 074030.
- Diluiso, F., Walk, P., Manych, N., Cerutti, N., Chipiga, V., Workman, A., ... Minx, J. C. (2021). Coal transitions—part 1: a systematic map and review of case study learnings from regional, national, and local coal phase-out experiences. *Environmental Research Letters*, 16(11), 113003.
- Seres, G., Balleyer, A., Cerutti, N., Friedrichsen, J., Süer, M. (2021). Face mask use and physical distancing before and after mandatory masking: No evidence on risk compensation in public waiting lines. *Journal of Economic Behavior & Organization*, 192, 765-781.
- Seres, G., Balleyer, A. H., Cerutti, N., Danilov, A., Friedrichsen, J., Liu, Y., Süer, M. (2021). Face masks increase compliance with physical distancing recommendations during the COVID-19 pandemic. *Journal of the Economic Science Association*, 1-20.
- Cerutti, N., Schlüter, A. (2019). Resource changes: exogenous or endogenous, gradual or abrupt. Experimental evidence. *International Journal of Environmental Studies*, 76(6), 1004-1018.
- Cerutti, N. (2017). Social Dilemmas in Environmental Economics and Policy Considerations: A Review. *Ethics in Progress*, 8(1), 156-173.

Skills

SOFTWARE AND TECH STACK:

Advanced: Python, SQL, R, STATA, Scikit-learn, Git, Linux

Intermediate: Django, Docker, PyTorch, Azure, Tableau, Optuna, Streamlit

Basic: AWS, HTML & css, Java, Flask

LANGUAGES:

Italian (native), English (C2), German (C1), Spanish (B1)

References

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