

# Felipe Operti

Turin, Italy

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in felipeoperti



As a Data Scientist Specialist, I have an extensive expertise in Natural Language Processing (NLP) and Deep Learning. My skills include designing, developing, and deploying advanced artificial intelligence solutions that drive business outcomes. I have worked extensively with Azure cloud infrastructure and AWS, utilizing technologies such as Docker, Kubernetes, and FastAPI. I hold a Ph.D. in Physics of Complex Systems, with research focused on computational analysis for socio-economic sciences. My skill set includes natural language processing, generative ai, deep learning, machine learning, software engineering, and data analysis. I have experience in various domains, including insurance, banking, technology, and retail. My background includes leading end-to-end projects with teams composed of data engineers, data scientists, and machine learning engineers. I am committed to delivering innovative solutions that drive business outcomes and am excited to collaborate with organizations that share my passion for artificial intelligence and technology.

## EMPLOYMENT

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Data Science Specialist  
Reale Mutua

Turin, Italy  
From Jul 2022

As a Data Scientist Specialist at Reale Mutua, my primary focus is on working with unstructured data using Natural Language Processing (NLP) and Deep Learning models. I work on the Azure cloud infrastructure, leveraging its capabilities to design, develop, and deploy advanced artificial intelligence solutions.

Technologies: Generative AI, Azure, AzureML, LangGraph, LangChain, Python, Docker, Pytorch, HuggingFace, Spacy, etc.

Full Stack Data Scientist  
Self-employed

Turin, Italy  
From Jan 2021

FraleAnalitica was born from a personal project with a friend, aiming to apply machine learning and deep learning techniques in the fields of agriculture, particularly beekeeping. In FraleAnalitica, I serve as a technology consultant and freelance Full Stack Data Scientist. My primary responsibilities include developing, deploying, and maintaining AI services for agricultural and beekeeping applications.

For more information:

- <https://opertifelipe.github.io/projects/honai/>  
- <https://www.fraleanalitica.it/>

Technologies: Azure, MLOps, Machine Learning, Deep Learning, FastAPI, Docker, Python, etc.

Data Scientist | Machine Learning Engineer  
Inda - Interviewweb S.r.l. - Zucchetti Group

Turin, Italy  
Mar 2021 - Jul 2022

Data scientist at INDA (Interviewweb S.r.l. solution, a Zucchetti company) working principally with Natural Language Processing (NLP) and Deep Learning. Responsible for the development, deployment, and maintenance of machine learning solutions.

Technologies: AWS EKS, AWS ECS, AWS Lambda, AWS Sagemaker, Python, Docker, Kubernetes, FastAPI, ElasticSearch, MongoDB, etc.

Data Scientist Specialist  
Samsung SDS

São Paulo, São Paulo, Brazil  
Nov 2020 - Mar 2021

Data Scientist Specialist in CRM area at Samsung SDS. Responsible for the development and deployment of propensity models, churn models, sentimental analysis, and RFV models.

Technologies: Data Lake, HDFS, Brightics, Adobe Campaign, Python, Scala, Docker, Spark, and PySpark.

Data Scientist Consultant  
Santander Bank

São Paulo, São Paulo, Brazil  
Aug 2019 - Jul 2020

Data Scientist in Santander DataLab. Data Lab is an innovative area whose aim is to develop large cross-areas end-to-end projects. Data Lab works as a consultancy society within the bank. In the lab, the interaction between product owners, data engineers, data scientists, and machine learning engineers is strongly encouraged. My responsibilities there are: from one side to develop machine learning models (as data scientist consultant). Due to the heterogeneity of the projects, also the applied machine learning and deep learning models are heterogeneous. On the other side, I am also responsible for checking the entire pipeline (from the ETL, the development of the models, and finally the deployment).

Technologies: Data Lake, Hadoop, Cloudera, Python, Scala, SQL, Hive, Impala, Spark, PySpark, and Oracle.

Senior Data Scientist  
Santander Bank

São Paulo, São Paulo, Brazil  
Dec 2018 - Aug 2019

Data scientist at Santander Bank in Customer Relationship Management (CRM). My position there was of senior data scientist and my responsibility was the development of machine learning models for different purposes (propensity and churn models for different products among others). Such models were typically machine learning supervised algorithms such as Random Forest, Gradient Boosting, Logistic Regression, and Artificial Neural Networks as well as unsupervised algorithms such as hierarchical, k-means, and DBSCAN. Furthermore, we worked with NLP algorithms for sentimental analysis of reclamations data.

Technologies: Data Lake, Hadoop, Cloudera, python, R, Scala, SQL, Java, ShellScript, Hive, Impala, Spark, PySpark, and Oracle.

## EDUCATION

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PhD in Physics, Complex Systems  
Federal University of Ceará

Fortaleza, Brazil  
Feb 2015 - Dec 2018

Thesis: Computational analysis for socio-economic sciences.

Visiting PhD in Physics, Complex Systems  
City College of New York

New York City, United States  
Apr 2018 - Jun 2018

Visiting PhD in Physics, Complex Systems  
University La Sapienza

Rome, Italy  
Apr 2017 - Sep 2017

MSc in Physics, Complex Systems  
Federal University of Ceará

Fortaleza, Brazil  
Jul 2014 - Jan 2015

Thesis: Interpolation strategy based on Dynamic Time Warping.

BSc in Physics  
University of Turin

Turin, Italy  
Sep 2009 - Oct 2012

Thesis: Monte Carlo Simulation of the radiation distribution emitted by a CT scan in the field of the radioprotection.

## SKILLS

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Machine Learning and Deep Learning: LangGraph, LangChain, Pytorch, Unsloth, HuggingFace, OpenAI, Azure Cognitive Services, Spacy, etc.

MLOps: FastAPI, Kubernetes, Docker, Git, Typer, Pydantic, Poetry, Uv, Github Actions, Azure Pipelines, etc.

Cloud: Azure, AzureML, Azure DevOps, Azure Container App, AWS, AWS ECS, AWS EKS, AWS ElasticBeanstalk, AWS Sagemaker, etc.

Data Analysis: Python (Jupyter Notebook, Pandas, NumPy, StatsModels, etc), Scala, SQL, Spark, PySpark, Hadoop,

Hive, Impala, Excel, etc.

Data Visualization: Matplotlib, Seaborn, Plotly, Streamlit, Grafana, Gephi, QGIS, etc.

Databases: MySQL, PostgreSQL, HDFS, Elasticsearch, and MongoDB.

Other computer skills: Java, C++, (learning) Rust, and Bash.

Operating systems: Linux (Arch Linux, Debian, and Ubuntu), MacOS, and Windows.

Languages: Italian (native), Portuguese (fluent), and English (fluent).

## PUBLICATIONS

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- Felipe G. Operti et al. Dynamics of racial segregation and gentrification in New York City. *Frontiers in Physics*. 2022.
- Felipe G. Operti et al. Dynamics in the Fitness-Income plane: Brazilian states vs World countries. *PlosOne*. 2018.
- Felipe G. Operti et al. The light pollution as a surrogate for urban population of the US cities. *Physica A*. 2018.