

Antonio Ercole De Luca

Software Engineer

I have worked as a consultant since 2016 in different roles: Machine Learning Engineer, Data Architect, Data Scientist, DevOps, and Scrum Master. I have worked on all aspects of data management: retrieval, storage, cloud infrastructure scaling, statistical analysis and data mining. Following the entire data life-cycle: web scraping, design of relational databases, cloud deployment, RESTful API and Jupyter Notebooks. In 2019 I took a couple of sabbatical years to investigate Statistics & Finance. I also contributed to two scientific papers on Web Scraping and Data Visualization.

EXPERIENCE

[Aquaticode](#), Remote— Software Engineer

January 2023 - Present

Enhanced the development process at Aquaticode by adopting best practices such as test-driven development (TDD), setting up continuous integration and deployment (CI/CD) pipelines, and using agile/scrum user story descriptions and definition of done.

Self-employed, Remote— Entrepreneur

October 2021 - January 2023

Bootstrapping three different projects: 1. I achieved 200 installs after one month from the launch of a Chrome Extension that helps to write prompts for Stable Diffusion. 2. I peaked 100 daily visitors starting from scratch using Programmatic SEO, which performed a rank of the products sold in restaurants using Sentiment Analysis ([video explanation](#)). 3. I achieved +40% ROI, after two years, by holding a portfolio of Exchange Traded Funds (ETFs) selected using a bayesian time series forecasting algorithm I applied to the historical price data.

[Molo Finance](#), Remote/London — Software Engineer

January 2022 - June 2022

Successfully launched a digital platform providing Residential mortgages to UK customers. Being part of a team working on refactoring the code-base; setting up local/test/production environments; implementing backwards-compatible changes to RESTful API; bug fixing.

[World Food Program](#), Remote/Rome — Software Engineer

March 2021 - October 2021

I led a team of 10+ engineers to adopt Scrum and perform effective practices like daily stand-ups. I led junior developers in adopting homogenous testing practices after agreeing on internal TDD coding standards. Evaluated and reported technical debt that occurred from past designs. I led a team of Quality Assurance Engineers: we laid the foundations for end-to-end automated testing.

Consultant, Remote — Software Engineer

2017 - 2019

I worked with more than ten international clients on Upwork.com with 5/5 stars as median feedback. Three examples: 1. I designed an image similarity search engine with almost zero response time indexing more than 40k images using an Approximate Nearest Neighbors data structure. 2. Zeroed client's cloud infrastructure costs by setting up docker and docker-compose and migrating a Django app and the relational database from Digital Ocean to Google Cloud Platform (GCP). 3. I built a Django app with 83% testing coverage using Test Driven Development.

[Kiwi Campus](#), Berkeley, US — Software Engineer

2017

I was responsible for a platform that integrated through a supplier's API which brought more than 2k food delivery orders in less than two months.

[Legalkite](#), Remote/Zurich — Backend Engineer

2016 - 2017

I designed several RESTful endpoints. I improved 10x REST API response time by translating Django ORM queries into raw SQL queries. I solved data inconsistency bugs by refactoring a relational database schema and making Elasticsearch a read-replica. I scaled 100x a data scraping module by porting it to Scrapy and Scrapinghub.

SKILLS:

Python
Docker
Django
Postgres
Google Cloud
AWS
Bash
Airflow
Optuna
Pandas
Prophet
Scrum
Selenium
SQL
TDD
Javascript
React
HTML
Java
Groovy
C

LANGUAGES

English
Spanish
Italian

Open-Source Contributions:

[Linkedin](#)

[Dask](#)

Personal Projects:

[write-ai-art-prompts.com](#)
[where2buy.it](#)
[where2invest.in](#)

ORGANIZER

PyData Las Palmas
Python Meetup
Palermo

Contacts:

eracle@posteo.eu

[SpazioDati](#), Pisa, Italy — ML Engineer Intern

2015 - 2016

I designed a Human-in-the-loop Active Learning workflow using a crowdsourcing platform's API called CrowdFlower. I increased 2x F1-score in a Logistic Regression model used for Named Entity Linking using a technique called Uncertainty Sampling.

[Synthema](#), Pisa, Italy — Software Developer

2014 - 2015

I made ready for production some steps in Natural Language Processing (NLP): Segmentation, Tokenization, POS, Stop Words, Dep. Parsing, NER. In different languages: Romanian, Japanese, Chinese and German. I worked on an EU-funded (5.6 Mln €) project: CAPER.

EDUCATION

Computer Science – Bachelor's Degree

University of Pisa, Italy

2007 - 2010

Thesis on Natural Language Processing: Document classification using lexical and semantic resources.

Data Science and Business Informatics – Master's Degree

University of Pisa, Italy

2011 - 2013

Thesis on Natural Language Processing: Applying Active Learning on Entity Linking.

Statistics & Data Science – Bachelor's Degree

University of Palermo, Italy

2019 - 2020

Financial Mathematics, Finance Theory, Multivariate Analysis, Inference, R Language, Probability.