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Senior Software Engineer  
Bayesian Machine Learning Engineer

## SKILLS

- Python 
- SQL 
- Pandas 
- Django 
- Docker 
- Kubernetes 
- AWS 
- Google Cloud 
- Selenium 
- Bayesian Inference 
- FBprophet 
- Dask 
- Optuna 
- Scrum 
- TDD 

## LANGUAGES

- Italian 
- English 
- Spanish 

## CONTACT



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• Personal web site:  
<https://eracle.me>

## PROFILE

I am a Senior Software Engineer, working as a consultant since 2016, having shifted over different roles such as Machine Learning Engineer, Data Architect, Data Scientist, DevOps, and Scrum Master.

I have worked on all aspects of data management such as retrieval, storage, cloud infrastructure scaling, data analysis, and mining; encompassing web scraping, design of relational databases, cloud deployment, RESTful API, and Jupiter Notebook.

In 2019 I took a couple of sabbatical years to get into the world of Statistics & Finance. During my career, I also contributed to two scientific papers in the field of Web Scraping and Data Visualization.

## WORK EXPERIENCE

### World Food Program (2021 - now)

#### Senior Software Engineer

Pushing a team of 10 Software Developers to tightly adopt Scrum:  
- more effective daily stand-ups;  
- best practices to adopt Test Driven Development;

Reducing the technical debt for HumanitarianBookingHub web platform;  
Teaming with the QA devs to implement the e2e testing framework to be included into the CI pipeline.

### Consultant, Remote (2017 - 2019)

#### Data Architect

Worked with more than 10 international clients on Upwork.com receiving 5/5 stars as median feedback.

Some stories:

- Designed an image similarity search engine with near zero response time, indexing more than 40 000 imgs by using Approximate Nearest Neighbors data structure;
- Reduced client's cloud infrastructure costs by dockerizing a django app and migrating from Digital Ocean to Google Cloud;
- Built a django app with 83% testing coverage by using Test Driven Development.

### Legalkite Ltd, Zurich ( 2016 - 2017 )

#### Back-end Software Engineer

Design of several RESTful endpoints;  
Improved 10x REST API response time by translating django ORM queries into raw SQL queries;

Solved data inconsistency bugs by:

- Refactoring postgres schema;
- Making Elasticsearch a read-replica;

Scaled 100x scraping module by porting it to scrapy and scrapinghub.

### SpazioDati, Pisa, Italy ( 2015-2016 )

#### Machine Learning Engineer

Design of a Human-in-the-loop Active Learning workflow using CrowdFlower API (now Appen).  
Increased 2x F1-score in Logistic Regression model used for Named Entity Linking by using Uncertainty Sampling.

### Synthema, Pisa, Italy ( 2014-2015 )

#### Software Developer

Productionize Natural Language Processing steps:  
Segmentation, Tokenization, POS, Stop Words, Dep.Parsing, NER;  
(Romanian, Japanese, Chinese and German)  
EU funded (5.6 Mln €) project: CAPER.

## EDUCATION

### Bachelors Degree Statistics & Data Science

Università di Palermo, Italy

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

( 2019 - 2020 )

### Masters Degree Data Science and Business Informatics

University of Pisa, Italy

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

( 2011 - 2013 )

### Bachelors Degree Computer Science

University of Pisa, Italy

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

( 2007 - 2010 )