

# **Urszula Czerwinska**

## **DEEP LEARNING ENGINEER**

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Paris, France

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Github, LinkedIn : [@urszulaczerwinska](https://github.com/urszulaczerwinska)

Medium blog: <https://medium.com/@ulalaparis>

publications : <https://orcid.org/0000-0002-5244-0708>

Skills: Python (TF, Pytorch, Spacy), SQL, Elasticsearch

Languages: French, English, Polish, Spanish, Russian

French and Polish citizenship

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### **PROFESSIONAL EXPERIENCE (+5 years)**

#### **Computer Vision engineer for e-commerce**

*Senior Data Scientist, June 2022 - currently, Adevinta, Paris*

*Tesorflow certified March 2024*

- constructing image embeddings extraction pipelines (AI architecture governance) serving internally 5 teams
- vision foundation models benchmarking
- vision-test models testing and applying to business cases
- self-supervised vision models fine tuning & pre-training to better fit business problem
- diffusion models prototyping for e-commerce business usage
- scene-text extraction (improved existing solution by 33%) - multi-class classification (accuracy improvement by 45%) - led SOTA discovery for an emerging topic as project lead - authored tech blog articles
- ML-guild organizer, reading article session organizer

#### **NLP engineer at French Supreme Court**

*Senior Data Scientist, June 2020 – June 2022, Cour de Cassation, Paris*

- LM, NER, Classification (flair, hugging face transformers, pytorch, spacy, allennlp, mongo, elasticsearch)
- T5 text generation for t2t model
- Managing data pipelines: DVC
- Data evaluation, models testing & monitoring

## **Machine Learning projects tailored to the needs of our clients from CAC40**

*Senior consultant Data Scientist, June 2019 – June 2020, Saegus, Paris*

- Société Générale: XAI : user story on algorithms interpretability (SHAP, Alibi, counterfactual predictions, scikitlearn, jupyter notebooks, OOP python code)
- Servier: NLP analysis of biotech patents: classification, NER (Elasticsearch, Python: scikitlearn, spacy, flair, tensorflow, pytorch, Azure)
- Show case for tech conférence EGG PARIS 2019: keywords extraction from Medium blog posts (Dataiku DSS, Python, spacy, API: flask, js)

## **Data management et data strategy for indirect purchasing consultancy**

*Lead data scientist, Nov. 2018 – May 2019, JICAP-PERFORMANCE, Paris*

- realized POCs (python) of data extraction from PDFs (text and images) - formulated a strategy of management et data sharing
- leaded development of the analytics branch of the company

## **Data Science applied to biomedical sciences**

*Junior researcher, Oct. 2015 –Nov. 2018, Institut Curie, Paris*

- analyzed large data (>100Gb) – the biggest referenced study of its kind, using machine learning, statistical and distributed computing tools; improved state of the art by 5 % creating a new analytical tool (R package); demonstrated a novel application of an algorithm (Independent Components Analysis) in oncoimmunology; created dashboards (Tableau, RShiny), reports (ppt, pdf, HTML) and data visualizations (R ggplot2, plotly)
- took part in 6 scientific publications (of whom lead 2) in different teams of 2-15 people
- gave talks (in front of 20 - 1000 people) at 6 national and international symposiums, won an award in a professional pitch competition, awards of best oral and poster presentations
- taught maths, statistics, and programming at Pharmacology faculty of Paris Descartes (to students in 2nd and 5th year)
- wrote chapter 'interpretability of ML models' for a book "Data Science in Tourism", Springer 2020
- co-organized Meetup events « Women in Healthcare and Data Science », 2018-2019
- gave a seminar at Créalise, Réunion, data jobs at Epitech, Réunion, mai 2019
- co founded a biotech start-up, Apr. 2015- Sept. 2015

## **EDUCATION**

Ph.D. in bio-mathematics, Institut Curie, Paris Descartes, Centre de Recherches Interdisciplinaires (CRI); complementary courses: SciencesPo Paris, L'Ecole Polytechnique, Coursera, 2015-2108

Master, Interdisciplinary approaches to life sciences, CRI, Paris Diderot, highest honors, 2013-2015

Double bachelor, Biology-Mathematics, UPMC, Paris VI, honors, 2010-2013

University exchange, National University of Singapore, Singapore, 2012-2013

Bilingual French-Polish high school, Warsaw, Poland, high honors, 2010