





# MATYAS AMROUCHE


## Machine Learning Engineer

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## EXPERIENCE

### Lead Machine Learning Engineer

#### Justice.cool

July 2019 – Ongoing

Paris, France

- Designed end-to-end NLP solutions (from data annotation to model deployment) to make structured datasets out of raw French jurisprudence using recent Transformer based neural network architecture CamemBERT
- Engineered from scratch Justice.cool's ML API back-end with Docker on AWS to provide developers and product teams with ML services (such as an aggressivity detector on users' messages and an information retriever from users' uploaded documents combining OCR and NLP techniques)
- Engineered search engine on AWS to match user's queries to associated French jurisprudence, combining both statistical approach (BM25) as document retriever and document embeddings (Siamese CamemBERT) as re-ranker
- Team lead of Justice.cool's data science projects. Hiring manager and interviewer for data science interns. Mentorship of 2 student's groups from Centralsupélec

### Data Analyst

#### Meetic

Oct 2017 – Sept 2018

Paris, France

- A/B testing new features such as homepage design, pricing strategy or algorithms parameters to optimise related KPIs
- Forecasts and KPIs monitoring with automated dashboard integration
- Data extraction and business analysis (users' conversion rate, their activity, their experience, their lifetime value, acquisition strategies...) for various company's stakeholders

### Supply Chain Analyst - Intern

#### Amazon

March 2017 – Sept 2017

London, UK

- Data extraction and analysis for weaknesses identification among the EU Amazon's transportation network to reduce damaged, lost and late shipments
- Implementation of weekly/monthly automated dashboard for KPI monitoring
- Supply and demand forecasts for inventory optimization

## EDUCATION

### M.Sc. in Machine Learning

#### Telecom ParisTech

Sept 2018 – July 2019

Paris, France

### M.S. of Engineering in Computer Science

#### IMT Atlantique (ex Mines de Nantes)

Sept 2014 – Sept 2017

Nantes, France

## ABOUT ME

What I love most in my work is combining cutting edge research and engineering to build efficient AI systems that can perform previously impossible tasks.

## PROJECTS

- Top 7 (out of 3000) at the [X-PSG Sports Analytics Challenge](#) using a Deep Learning only approach.
- AI writer on Towards Data Science [blog](#).
- Co-authored [cdQA](#), a python lib for Question-Answering fine-tuning (400 stars)
- Reading papers, writing articles and coding projects on Deep Reinforcement Learning (AI bots programming to play cards game and football video game)
- Found of Deep Learning and Arts (Style Transfer, Deep Dream, Music generation)
- Joining hackathons to dive into new business area and their related data (malware detection, image segmentation on satellite pictures, optimization for carbon reduction in luxury textile...)

## STACK

### Coding Languages

Python / Java / SQL

### Cloud Computing

AWS / GCP

### Dev Tools

Unix / Git / Docker

### DB

Oracle / MongoDB / Elasticsearch

## LANGUAGES

### French



### English



## INTERESTS

Literature (classic, science-fiction, fantasy)

Sports (football and gym)