



Nicolas MINE

## Data Scientist / Python Developer

### About me

Being passionate about programming for more than 10 years, I have developed from personal projects, training and at work a wide variety of skills ranging from Data Science to Web and software development.

My main interests are Data Analysis / Data Science but also Python and web development.

### Work experience

#### Data Analyst

Since June 2021 **Editus** Kayl, Luxembourg

Analysis of mobility data provided by POST telecom on their **Big Data** platform using **pySpark (approximately 1 billion records per month)**. Realization of calculations, analysis and preparation of aggregations for the rendering part done in Power BI by the Data Engineering team.

- Realization of several preprocessing algorithms on the data (enrichment, calculation of routes, determination of the means of transportation, determination of the places of residence or work, extrapolation of the market share of POST in the country).
- Use of **Machine Learning** when necessary (mostly **unsupervised learning**).
- Realization of multiple deliverables with an analysis of visits / visitors present in a given area using the telecom antennas information.
- Analysis of mobility at the macro level in the country as well as their modes of transport when possible.
- Working mainly on **dataframes** and use of **RDDs** or **UDFs** when required.
- During R&D phases, tests of algorithms from publications.

Side missions:

- Some data engineering tasks such as integration of the cadastre, enrichment of cell data with the cadastre...
- Some internal POC such as an analysis on the churn, automation of controls...

#### Digitization Specialist

From January 2019 to June 2021 **Husky Injection Molding Systems** Dudelange, Luxembourg

Development of tools in Python:

- Implementation of APIs using **Django-REST-Framework** (POC & Prod). 4 different APIs for around 40 endpoints.
- Realization of a site as POC (Front: **Jquery + Bootstrap** & Back: **Django**)
- Industrialization of the site after customer validation (Front: **Angular + Material** & Back: **C#**)
- Development of 6 parsers to extract data from Excel files
- Automation of dimension extraction on 3D models based on profile analysis
- Automation of some Excel using **Machine Learning**
- Support other teams on data analysis
- Use of repository (**DevOps Repos** and **CICD Pipelines**)
- Creation of libraries of these codes for maintenance (about 20k LoC with tests and Code Coverage, 10 repos)

Working in Agile method with the Scrum framework

#### Designer Industriel

From October 2014 to January 2019 **Husky Injection Molding Systems** Dudelange, Luxembourg

- Design of plastic injection molds (approx. 80 projects / year)
- Participation in the coordination of projects
- Development of tools to automate certain tasks (5 tools implemented).

### Languages

French

English

### Assets

#### Rigor / Organization

Rigor is an important part, both in my work and in my hobbies.

#### Curious / Self-taught

I really like to learn new things. I constantly seek to renew myself.

### Interests

Programming

Sim Racing

Motorsport

### Social networks



<https://stackoverflow.com/users/8044652/nicolas-m>

**in** @nicolas-mine



@Coni63

## Computer skills

### Git

Standard use with branches and pipelines

### Azure DevOps

Use of DevOps for the Agile method (Boards) but also Repos, Wiki and Pipelines

### MS Office

Mastery of office suite tools including VBA macros

## Education

### Master of Data Science

From September 2017 to February 2018 [Openclassrooms](#) & [Centrale Supelec](#) Online

This course consists of 8 projects addressing different topics:

- Data mining
- Recommendation system
- Prediction on time series
- Customer segmentation
- Extraction of subjects (Topic Modeling),
- Image preprocessing and classification

A technology watch topic was also done on Recurrent Neural Networks, more specifically the implementation and testing of the "Quasi Recurrent Neural Network - QRNN" using Convolutional Neural Networks)

Finally, participation in a Kaggle competition is requested. The chosen topic was image segmentation with cell detection on medical images.

### Mechanical Engineer

From September 2010 to July 2013 [IFMA](#) Clermont-Ferrand, France

School of Mechanical Engineering. Specialty Machines, Mechanisms and Systems

## Additional education

### TensorFlow Developer Certificate

2020 [Google](#) Online

This certification requires knowledge of creating models using TensorFlow 2.X. During the assessment, you are asked to solve different problems (5 in a time limit of 2 hours) requiring either computer vision (CNN), time series forecasting (RNN) and natural language processing (Embedding + FCNN).

### Intelligence Artificielle et Algorithmique

Since 2010 [Codingame](#) Online

Codingame is a site that offers puzzles that must be solved using algorithms. There are different types of puzzles ranging from single-player games to bot fights to optimization competitions.

- Current rank: 646th / 651,000
- Favorite Mode - Optimization (51th / 32,500)
- Over 350 solved puzzles & 500 CoC

## Skills

### Python 3.X

10+ years of programming (**data**, **web-backend**, **Scripting**). Advance knowledge of libraries like **numpy**, **pandas**, **matplotlib**, **sklearn**, **fbprophet**, **pyspark**, **folium**

### Javascript / TypeScript

Important use of JavaScript at the beginning. I used **TypeScript** more recently while building sites with **AngularJS** and **React**.

### C#

Ability to script. Comfortable with the basics but little experience in software dev or backend

### Databases

Classic knowledge of querying (CRUD) on SQL (**SQL Server**), NoSQL (**MongoDB** / **CosmosDB**) and Distributed (**HBase**)