François Culière



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Presentation

After my education at Arts & Métiers, I specialized in Machine Learning by completing the Big Data Master at Télécom Paris. I am currently Senior Data Scientist at Capgemini Invent.

Skills

Technical

Python, SQL, Time Series, Computer Vision, Bayesian statistics

Cloud computing

AWS, GCP, Alibaba

Languages

French native, english advanced

Interests

Water sports, triathlon, music

Education

Sep 2019 - **Télécom Paris** – Paris, **10 mths** June 2020 Big Data education



Machine Learning

— In-depth study of Machine Leaning models (SVM, Bagging, Boosting, Neural Networks, Kernel Methods, Metric Learning, Model Selection, ARMA Model...).

Statistiques

— Least Squares, Ridge and Lasso Regression, Hypothesis Testing, Bootstrap.

July 2018 - UNSW - Sydney, 5 mths

Dec 2018 Exchange program



 $\boldsymbol{-}$ Industrial engineering, Electrical engineering, mechanical engineering, Computer science, systems optimisation.

Sep 2016 - Arts et Métiers ParisTech - Aix-en-Provence, 3 yrs

June 2019 Degree in engineering



— Industrial engineering, Electrical engineering, mechanical engineering, Computer science, systems optimisation...

Work Experiences

May 2021 **Quantmetry, part of Capgemini Invent** – Paris, **2 yrs, 11 mths**Today Senior Data Scientist, *manager of 4 Junior Data Scientists*



Computer Vision | Luxury & Retail Industry

— Development of a Visual Search tool to improve sales, facilitate inventory operations and speed up after-sales. The tool is able to find product references in an image and suggest similar products from the catalog.

Product recommendation | Luxury & Retail Industry

— Product recommendation project for prospects using website browsing data. The project is developed on the Alibaba cloud platform.

Audit & implementation of causal methods | Energy industry

— Audit and implementation of methods to calculate the reduction in consumption associated with subscribing to the services of an energy player. Implemented methods enable marketing targeting.

Assortment optimization | Luxury & Retail Industry

— Analysis & proposal of solutions to improve the assortment of seasonal products for the purchasing teams of a luxury goods company. Analysis of current clustering and proposed changes.

Machine Learning & Operations Research | Internal R&D

— Intern supervisor for implementing the latest research papers on usage of ML for solving Operations research problems. Algorithms were tested using the Amazon Last Mile Routing Research Challenge dataset. (https://routingchallenge.mit.edu/).

Forecasting | Luxury & Retail Industry

— Sales forecasting for a luxury retail player. Development of the sales forecasting algorithms and production launch. The solution is now used by all planners worldwide.

Training | Pharmaceuticals industry

— AI training and acculturation for the executive committee of a French pharmaceutical group. Creation of materials to acculturate the members of the COMEX to AI with a no-code session on image classification and transfer learning. Co-facilitation of the training session.

July 2020 - Hello Watt - Paris, 6 mths

Jan 2021 Data Scientist intern



Bayesian modelling | Energy industry

— Bayesian modelling of housing energy consumption conditioned to temperature. The model allow targeting housing needing the most coating refurbishment.

R&D

— Wrote a research paper for NILM Workshop NILM (<u>arXiv</u>).

Nov 2019 - Veepee - Paris, 6 mths

June 2020 Data Scientist trainee



Pricing

— Price elasticity modelling with 3 modelling level: out of stock, % of product sold and time series predictions (Poisson models).

Jan 2019 - Thales Alenia Space - Cannes, 6 mths

June 2019 Mechanical engineer intern

ThalesAlenia

Thales / Leonardo company Space

Mechanical systems modelling

 $\boldsymbol{-}$ Conception of satellites' Inertia and centre of mass measurement algorithms.

UI-UX

 $\boldsymbol{-}$ Creation of a user interface to ease the use of mass measurement algorithms.