

# Romain R. Brault

## Résumé

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**TL;DR:** Dynamic and curious, I am a Machine Learning and programming enthusiast looking for a senior ML research position, in France (I'm currently based in Paris) or abroad.

## Positions

Therisis, Thales SIX  
**Research Scientist** **Current, from December 2018**

The purpose of our team is to explore, select, analyse Stat of the Art ML solutions, to adapt them to the businesses' goals and improve their Technoly Readyness Level (TRL).

We have the double role of directly conducting original research projects for clients (TRL 1-4); but also listen to the need of the Buisness Units to provide them innovative and state of the art solutions tailored to their needs.

In this context I used ML domains as Time-Series forecasting, Speech-to-text, Signal processing (source separation). My current work is focused on Deep-Metric-Learning for audio, and I'm also involved in encouraging and developing MLOps at Thales.

Télécom Paris  
**Assoc. Prof.** **Current, from December 2018**

One-off replacement of lectures in ML (mainly Kernel Methods and supervised-learning).

L2S, Centrale-Supélec  
**Post-Doctoral Fellow** **October 2018, from October 2017**

My research were directed toward learning function-valued functions. We provided a **Tensorflow** implementation of the proposed method This postdoc is done in collaboration with the **CMAP** laboratory at École Polytechnique.

## Technical Skills

- **Python**, Poetry, Pandas, PyTorch, **Tensorflow**, Scikit-Learn, Multiprocessing, Prefect, MLFlow, Dash, ResAPI, ...
- C/C++, Hardware knowledge, CUDA, OpenMP, MPI **CI/CD**, DevOps, **MLOps**, Containers, K8s, Open-source contris, VIM lover
- **LaTeX**, Machine Learning, Statistics, Func. Analysis,

## Soft Skills

### Open Minded

I like listing to everyone's viewpoints, take decisions accordingly and enjoy continuous learning through discussions and teaching.

### Passionate

I have been interested in computer science and Maths for a long time. I particularly enjoy ML as it is at the crossroad of a large spectrum of disciplines, and foster learning of many subjects.

### Innovation with guarantees

During my postgraduate studies I took great pleasure in tackling challenging problems with rigor: studying the state of the art, proposing new solutions, studying them empirically and theoretically but also providing robust a implementation by documenting and using continuous integration tools (I.e. DevOps, MLOps, etc.).

## Education

2013 – 2017 **Doctor of Philosophy**  
Machine Learning  
*UEVE & Télécom ParisTech*

2012-2013 **Master of Science**  
Computer Science  
*Imperial College London*

2010 – 2013 **Diplôme d'ingénieur**  
Computer Science  
*ENSIIE, Paris-Saclay*

2010 – 2011 **Bachelor of Science**  
Mathematics  
*UEVE, Paris-Saclay*

## Publications

4 publications in peer-reviewed proceedings (h-idx 3, 60 cit.) and 3 Patents submitted at Thales. See Google scholar: [citations?user=IFkrCzYAAAAJ](https://scholar.google.com/citations?user=IFkrCzYAAAAJ).

## Doctoral Research

### "Large-Scale Operator-Valued Kernel Regression"

My doctoral studies have been motivated by my desire to applied mathematical knowledge to practical applications. I enjoy providing robust pieces of software along with theoretical guarantees. I also had the opportunity to be a teaching assistant at UEVE and Télécom ParisTech.

## Distinctions

- 2012 **Best engineering project**  
*Among the French Junior Entreprises*
- 2011 **Top Achiever Award**  
*Best Individual Project (out of 109)*

## Languages

**French** (native), **English** (Fluent),  
**Portuguese** (beginner), **German** (notions)

## References

**Pr. Florence d'Alché-Buc**  
Position Full Professor  
Employer *LTCI, Télécom ParisTech*  
Email [florence.dalche@enst.fr](mailto:florence.dalche@enst.fr)

## Hobbys

In my spare time I enjoy climbing, trekking and cycling (commuter). I spend most of my holidays in Brazil.

