

Romain R. Brault

Résumé

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RomainBrault
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TL; DR: Dynamic and curious, I am a Machine Learning and programming enthusiast looking for a research position, in France or abroad.

Doctoral Research

"Large-Scale Operator-Valued Kernel Regression"

My doctoral studies have been motivated by my desire to apply mathematical knowledge to practical applications. I enjoy providing robust pieces of software along with theoretical guarantees. During this thesis I have been conducted to develop and maintain the open-source library **Operalib** which aims at implementing state of the art operator-valued kernel based algorithms and being fully compatible with **Scikit-Learn**. I also had the opportunity to be a teaching assistant at **UEVE** and **Télécom ParisTech**.

Positions

III-V Lab, Thalès
Research Scientist Current, from December 2018

L2S, Centrale-Supélec
Post-Doctoral Fellow October 2018, from October 2017
My current research is directed toward learning function-valued functions. We provide a **Tensorflow** implementation of the proposed method. This postdoc is done in collaboration with the **CMAP** laboratory at École Polytechnique.

Department of Computing, Imperial College London
Master Thesis September 2013, from Mai 2013
Worked on Finite Elements Method: modified **Fluidity**'s code to integrate bended elements to the **FEniCS** project.

CMLA, ENS Cachan
Research Intern July 2012, from June 2012
Implementation of a parallel lock-free SGD algorithm using OpenMP and SSE instructions. Also worked on a CUDA GPGPU implementation.

Soft Skills

Open Minded

I like listen to everyone's viewpoints, take decisions accordingly, and enjoy to keep learning through discussions.

Passionate

I have been interested in computer science for a long time and my education and research have cemented this interest into a passion. I particularly enjoy machine learning as it is at the crossroad of a large spectrum of disciplines, and requires to always learn more about 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.

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. See Google scholar: [citations?user=IFKrCzYAAAAJ](https://scholar.google.com/citations?user=IFKrCzYAAAAJ).

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), **German** (notions)

Technical Skills

Pandas, Python, Tensorflow, Scikit-Learn,

C/C++, x86 Assembly, Hardware, OpenMP, MPI
Continuous Integration, Open-source contribs

LaTeX, Machine Learning, Statistics, Func. Analysis

References

Pr. Florence d'Alché-Buc
Position Full Professor
Employer **LTCI, Télécom ParisTech**
Email florence.dalche@enst.fr

Dr. Zoltán Szabó
Position Associate Professor
Employer **CMAP, École Polytechnique**
Email zoltan.szabo@polytechnique.edu

Hobbys

In my spare time I enjoy practicing photography (see 500px.com/romainbrault) as well as climbing and trekking. I used to practice archery.

