

Philippe Remy

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<http://philipperemy.github.io/me/>

PROFILE

Author and maintainer of Keract and Keras-TCN. I am co-founder and currently research lead at Skysense, an early stage Computer Vision startup for agriculture. Previously, I was the first research member at Cogent Labs, a Tokyo based AI company (pre-seed to Series C). I graduated from Imperial College and ENS Bordeaux in Statistics and Computer Science. My next objective is to embark on a PhD, do some cutting edge research within a lab and make a significant impact in the field of Deep Learning.

EDUCATION

Imperial College, London

2014-2015

MSc in Mathematical Statistics, Distinction

Thesis: State Space Models for Statistical Arbitrage with PMCMC.

Awards:

- Winton capital prize "Best thesis project in MSc Statistics" (£500)
- Finalist of the Warner prize (£1000)

Ecole Nationale Supérieure d'Informatique et Mathématiques, Bordeaux

2009-2012

French Leading Grande Ecole

Bachelor and Master in Computer Science & Engineering, First Class Honours

Institut Polytechnique, Bordeaux

2007-2009

Renowned intensive program in Mathematics & Physics, First Class Honours

EXPERIENCE

Skysense Inc. (First round of seed funding: 600K USD)

May 2020 - Present

Co-Founder and Research Lead

Tokyo, Japan / San Francisco, USA

- Researching on Hyperspectral Image Analysis to better estimate plant health.
- Implementing several plant detection models in Tensorflow and Darknet.
- Managing a team of labelers and developing the data pipeline to retrain automatically.

Cogent Labs (Post Series C)

Nov 2015 - Apr 2020

Research Engineer, supervised by D. Cournapeau and T. Sousbie

Tokyo, Japan

- Researched and implemented a real-time trading volume prediction solution for a top tier bank firm. Main researcher, 2-year project, now running in production with TF on GCP ([Harvard Business Review](#)).
- Reproduced results of many Deep Learning papers, with a focus on time series and computer vision.
- Reached state-of-the-art accuracy on Japanese handwritten character recognition tasks ([Bloomberg](#)).
- Completed a Deep Learning demo to introduce Google Vision API at GCP NEXT 2016. The Project was under the supervision of Jeff Dean (conference speaker) from Google. [Google Blog](#).

Imperial College and HSBC*Research Assistant, supervised by N. Kantas and E. McCoy*

Apr 2015 - Sep 2015

London, UK

- Statistical arbitrage project on US equities based on mean-reverting processes and stochastic volatility models (estimation of the parameters with particle Markov chain Monte Carlo methods).

Itiviti*Software Engineer (Low Latency Market Access)*

May 2013 - Nov 2014

Paris, France

- Developed and maintained gateways to trade on European markets.
- Received a company award for the implementation of trading gateways for Bitcoin markets (500E).

BNP Paribas Arbitrage*Software Engineer (Intern)*

Feb 2012 - Aug 2012

Paris, France

- Refactored the exotic derivatives booking system to improve its performance.

Pohang University of Technology*Data Mining Research Intern*

Jun 2011 - Sep 2011

Pohang, South Korea

- Wrote a lightweight library in C to train neural networks (multilayer perceptron).

PROGRAMMING SKILLS

Languages	Python, R, MATLAB, C
Frameworks	Tensorflow, Keras, Darknet, Edward

LANGUAGES

French	Native
English	Full professional proficiency (IELTS Band 7.5, 2019)
Spanish	Casual conversational proficiency
Japanese	Casual conversational proficiency

COMMITMENTS / SIDE PROJECTS

2019-2020. Part of a small quantitative trading team whose purpose is to write trading algorithms on cryptocurrency markets.

2019. Developed a Machine Learning-based fraud detection solution used by a large telecom company. It performs daily inference with one billion records per day in Python and Tensorflow.

2017-2019. Machine Learning Advisor for Telcoin, a blockchain startup. Created a deep learning library to automate the KYC (Know Your Customer) process (ID scan, face verification, handwriting recognition...). Also participated in video interviews and wrote a blog post on how Artificial Intelligence could support Blockchain applications like Telcoin.

2017. Author of the course Advanced Deep Learning with Keras, produced with Packt Publishing.

2010-2012. Co-Founder and lecturer at Club Finance Bordeaux (student organization). Gave talks on topics related to Mathematical Finance.

OPEN SOURCE

- My GitHub repository YOLO-9000 was selected by the CVPR 2017 conference.
- Author of Keras-tn, the most popular library for Temporal Convolutional Networks with Keras. The merge into Tensorflow addons is in progress.
- Author of Keract, a Keras library to fetch the gradients and activations of any deep learning network.
- Provided source code for: Deep Speaker (2017), Wavenet (2016), Very Deep Networks for Raw Waveforms (2016), Speaker Change Detection (2017), MD LSTM (2006), Phased LSTM (2016), Stock Volatility with Google Trends (2016), etc...

Scripting

- Gathered large text datasets, some of which are used by big companies such as IBM Research.
- Wrote Python wrappers to help democratize the Stanford NLP library (Information Extraction and Named Entity Recognition).

INTERESTS

- Hobbies include winter alpine climbing, ice skating, PC strategy games.
- Programming and Open Source.
- Exploring new cultures.