

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

Awards: Winton Capital prize "Best thesis project in MSc Statistics", finalist of the Warner prize

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.

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

Nov 2015 - Apr 2020

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

Tokyo, Japan

- Researched and implemented a real-time trading volume prediction software for Daiwa Securities, a large brokerage firm (main researcher, 2-year project, now running in production with TF on GCP).
- Reproduced results of many Deep Learning papers, with a focus on time series.
- Reached state-of-the-art accuracy on Japanese handwritten character recognition tasks (cf. 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. cf. Google Blog.

Imperial College (supervised by HSBC)*Graduate Researcher, 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.

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 Bitcoin 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-ten, 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 other cultures.