

#### MACHINE-LEARNING R&D ENGINEER

103, Rue Gabriel Peri, 92120, Montrouge

□+33642466312 | ☑rafael.cartenet@gmail.com | @rafaelcartenet.github.io | ☐ RafaelCartenet | ☐ rafaelcartenet

**Experience** 

Openfield Paris, France

MACHINE-LEARNING R&D ENGINEER

June 2018 -Present

- · Participated in design and implementation of a geo-oriented product for spatial intelligence and visualization.
- · Passengers flow analysis over french railway network, real-time flow analysis using mobile devices' WiFi signals.
- · Implemented several generic functions such as sequence generation, path anonymisation, outliers detection.

Mediasia Labs Shanahai. China

MACHINE-LEARNING R&D ENGINEER INTERN

Aug. 2017 - Feb. 2018

- · Designed, implemented and trained Deep-Learning models for speech segmentation and phoneme classification.
- · Developed phonetic pronunciation evaluation tool for language learners, using BLSTM and dynamic programming algorithm.

AIM KAIST Daejon, S.Korea

RESEARCH ASSISTANT, LABORATORY INTERN

March 2017 - June 2017

- Interned at AIM laboratory (Artificial Intelligence & Machine-Learning) under supervision of Pr. Chang D. Yoo.
- · Participated in CVPR'17 Workshop on Youtube-8M Dataset: Video Classification. Implemented Attention-Based Bidirectional LSTM.

Aerow Digital Paris, France

SOFTWARE DEVELOPMENT ENGINEER INTERN

May 2016 -Aug. 2016

- Designed and implemented simple OCR for bank cheques CMC7 code extraction, tried SVM and simple Neural Net.
- · Configuration and implementation of the Blackberry's Mobile Device Management solution for an environment of 50 users.

## **Education**

## **KAIST (Korea Advanced Institute of Science and Technology)**

Daejeon, S.Korea

GRADUATE EXCHANGE PROGRAM

Sept. 2016 - June. 2017

- Specialized in Computer Science with a Machine Learning minor.
- · Coursework: Deep Learning, Natural Language Processing, Computer Vision, Search Based Soft. Eng., Al and Machine Learning.

## **INSA (National Institute of Applied Sciences)**

Rouen, France

MASTER OF ENGINEERING (M.ENG.)

Sept. 2012 -April 2016

- Specialized in Mathematics and Computer Science.
- · Coursework: Algorithms, Optimization, Markov Chains, Linear Algebra, Statistics, Differential Equations, Probability, Databases.

## **Extracurricular Activities**

### Various projects

• MCQ bot: Implemented simple AI to reply to simple multiple choice questions with an accuracy of 85%, for trivia apps.

2016 - 2018

- · Mini AlphaGo: Trained an AlphaGo-based AI of Go game, using Deep Neural Nets and MonteCarlo Treesearch.
- Vitaminst: Developed an Instagram bot for human-like behaviour using IG's API, running on several Raspbery PIs, centralized MongoDB.
- · Resource Allocation Optimization: Using search-based optimization techniques, optimized virtual machines distribution in the Cloud.

## **Competitive Programming**

• Hackatons GoogleHashcode 2015, ACM ICPC KAIST Mock Competition, Cod'INSA, BattleDev

2014 - 2017

CodinGame.com: Al monthly challenges (top 10 python3), HackerRank

# **Skill highlights**

#### **Programming**

- Proficient with: Python, Tensorflow, Apache Spark, C/C++, Torch7, Scikit-Learn, Matlab, MongoDB, Bash, Git.
- Familiar with: Java, SQL, Lua.

#### Spoken languages

- French: Native Language
- English: Professional proficiency
- Spanish: Proficient
- · Mandarin: Basics