# Arthur **Douillard**

DEEP LEARNING ENGINEER IN COMPUTER VISION

*Paris, France*

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## Education

**M.S. in Computer Science (*Diplôme d'ingénieur*)**                              *Paris, France*

EPITA         *Advisor: Reda Dehak*                                                                     *2013 - 2018*

- Machine Learning, Deep Learning, NLP, Python, C++, Golang, Scala/Kafka/Spark, Image processing, Text Mining
- Stats & Proba, Linear Algebra, Convex Optimization, Logic

## Experience

**Dataiku**                                                                                              *Paris, France*

RESEARCH ENGINEER INTERN       *Advisor: Léo Dreyfus-Schmidt*                              *Feb - Aug 2018*

- Elaborating Deep Learning models for computer vision (transfer learning, detection, training schedule, etc.).
- Created a GPU monitoring webapp sold to a Fortune 100 company.
- Currently competing for the NATO innovation challenge using Deep Learning for Computer Vision.

**ZebrIA**                                                                                               *Paris, France*

GRADUATE STUDENT RESEARCHER        *Advisor: Guillaume Palacios*                         *Aug 2017 - Jan 2018*

- Researched & Implemented SotA NLP papers for a medical chatbot.

**EPITA**                                                                                                *Paris, France*

TEACHER ASSISTANT (*YAKA / ACU*)                                                            *Jan 2017 - Jan 2018*

- Taught C, C++, Shell, SQL, Java, and algorithmic concepts to 2 classes of 350 Third Year students.

**MyDrive Solutions**                                                                          *London, United Kingdom*

DATA SCIENTIST INTERN       *Advisor: Zoulficar S. Younes*                               *Sept 2016 - Jan 2017*

- Analyzed and applied Machine Learning algorithms on driver data in Python (Pandas, Scikit-Learn, Keras) and R

## Personal Projects

- **Implementation in Keras/TF** of Snapshot Ensemble, FreezeOut, EffNet, FashionNet, and Squeeze-Excite-Net.
- **Implementation in Pytorch** of VQA and Variational Autoencoders.
- **Kafka pipeline** in Scala/Python with multi-threaded web-scrapper, **sentiment analysis** and processing with Spark-Streaming.
- Memory allocator on a **cluster of machines using MPI**.
- Minor contribution to scikit-learn fixing a bug in the RFECV algorithm.
- Efficient implementation of Damerau-Levenshtein distance with **Radix Trie** in C++.
- A small **search engine in Golang**, with indexation & search done through a custom pool of Goroutines.
- **Compiler front-end/back-end** for the language Tiger, coded in C++, YACC, Bison, and several flavors of ASM.

## Skills

- **Programming Languages**:                          Python  C/C++  SQL  Java  Scala  Golang  R  Shell  Latex
- **Data Science**:                                              Keras  Tensorflow  Scikit-Learn  Numpy  Pandas  PyTorch
- **Tools & OS**:                                                              Linux  MacOs   Git  Jupyter  Vim  VSCode
- **Languages**:             French (native)      English (TOEIC 965/990)      Spanish      Esperanto & Korean (notions)