

MORGAN GIRAUD

MACHINE LEARNING ENGINEER

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Profil

I'm actively looking for a research-focused position in Machine Learning. In the meantime, I'm alternating between reading papers, working on open-source projects, freelancing and blogging.

Before that, I was a web developer and entrepreneur. I co-founded the company Explee as a CTO where I built the whole technical stack.

My natural optimism, curiosity and hunger for learning make me resilient to sparse rewards when working on hard problems.

Personal Github:

- <https://github.com/morgangiraud>

Research interests:

- Reinforcement learning and the impact of embodiment, feedback connections, multi-modal learning and distributional RL.
- Meta-learning, quality-diversity & illumination algorithms.
- Neuroscience-inspired ML for more robust and more efficient algorithms.

Experience

Metaflow A.I, Machine Learning Engineer

Feb 2016 – Present

Open-source research in machine learning.

Research contribution:

- Core contributor to the OpenSource library for privacy-preserving Machine Learning in TensorFlow: [tf-encrypted](#). See the [associated research paper](#) (NeurIPS 2018 PPML workshop).

Research internship:

- Research project on Grounded Language Learning in simulated environments at ANITI (Artificial and Natural Intelligence Toulouse Institute) in Toulouse. I've explored how negotiations between players in the game "Settler Of Catan" can improve a model predictive capacity and ground the language into the model representation of the game. More information can be found in the official project repository: <https://github.com/rufiab/soc>

M.L. exploratory works :

- Exploration of GANs for video compression.
- A broad exploration of Deep Reinforcement Learning including variations of value networks, policy optimisation, actor-critic methods etc.
- Replication work of the neural style algorithm optimised for mobile devices using TensorFlow
- Unsupervised work in NLP: I trained multiple variations of RNN models on French music lyrics to build a French music lyrics autocompletion tool.

Blogging:

- Main subjects: M.L. engineering, machine learning and entrepreneurship in research focus environment: <https://medium.com/@morgangiraud>

Github repositories:

- <https://github.com/metaflow-ai>
- [tf-encrypted](#)

Explee, CTO (Co-founder)

Jan 2012 – 2016

Online software that aims to provide an easy-to-use solution for creating animated videos.

I've built the whole software system of <https://explee.com>, including:

- Building and managing a complex distributed web application infrastructure thanks to AWS, Docker and Kubernetes.
- Development of the JS video rendering engine working in the browser (real-time mode) and NodeJS (Best effort mode)
- Building the computer vision algorithm for image analysis: automatic drawing based clustering algorithm and a few heuristics.

ECV Digital, Teacher

Oct 2015 – Jan 2016

I've been teaching two classes for a semester:

- A PHP/MySQL class introducing those two languages and their ecosystem
- An Algorithm/JS class introducing basic concepts (algorithm complexity...) and the JavaScript language with its ecosystem

VizEat, MylittleParis, Web developer

July 2015 – Jan 2016

Hired as a PHP/JS freelance, I worked on the optimisation of the technical stack and helped them structure their technical process.

*Education***Telecom SudParis, Engineers Degree (Msc in CS)**

2009 - 2012

Telecom SudParis is a leading graduate school of engineering and part of Institut Mines-Télécom, the reference Institute for Information and Communication Technology in France.

Berthollet highschool

2007 - 2009

Intensive courses in advanced Mathematics (Algebra and calculus) and Physics to prepare for the highly selective entrance exams to the French "Grandes Ecoles".

Skills

Fluent in French and English.

Limited working proficiency in Italian

Fluent in Python, JavaScript and PHP.

Strong experience with TensorFlow (local and distributed setting).

Average knowledge of C++ and Golang.

Knowledge in client-server architecture and system administration (AWS/GCloud, Docker, Kubernetes)

Interests

Guitar

Sport (trail, swimming, swing)

French and Italian cuisine.