MORGAN GIRAUD

ML engineer and Tech lead

10 faubourg des Annonciades.
74000, Annecy. France.
+33610574116
contact@morgangiraud.com
https://morgangiraud.com
https://github.com/morgangiraud

PROFILE

Passionate ML & Web engineer with a background in machine learning engineering, web development, and entrepreneurship. Highly motivated to work and conduct research in machine learning to tackle its challenging issues. Skilled in Python, and its diverse set of ML frameworks (TF, PyTorch, JAX). Proficient in working with diverse teams.

Notable experiences include:

- Being a core original contributor to the open-source library, tf-encrypted, for privacy-preserving machine learning in TensorFlow, which was accepted at the NeurIPS 2018 PPML workshop
- My research internship on Gounded language learning and modality fusion for which you can find the annotated slides here

RESEARCH & ENGINEERING INTERESTS

- Explainable Artificial Intelligence (XAI): With an engineering focus, I am interested in developing tools to understand neural network learning and inference dynamics.
- ML scalability: Interested in exploring innovative solutions for faster training and reducing resource requirements.

SKILLS

- Proficient in Python with experience in TensorFlow, Pytorch, and Jax (Local and Distributed Settings)
- Proficient in JavaScript, PHP
- Average knowledge of C++ and Golang.
- Notion of GPU programming.
- Strong knowledge in infrastructure engineering and management
- Fluent in French and English, with limited working proficiency in Italian.

WORK EXPERIENCE (ordered by date)

WoW Studio | Lead tech
Apr 2022 – Present | Location: Remote

Leading a team of 6 technical professionals at WoW Studio, a tech and media company that develops innovative experiences and products.

- Actively participated in the developer hiring process by conducting interviews and creating technical assessments to evaluate candidates, ensuring a highly skilled team.
- Delivered multiple products by coordinating and supervising developers' work.
- Established effective processes for task organization, promoting collaboration and transparent communication within the team.
- Served as the main contact for technical matters, offering guidance and support to team members to enhance their skills and overall efficiency.

Leniax | ML engineer
2020 - 2022 | Location: Remote

Built Leniax, a JAX library to apply state-of-the-art quality-diversity algorithms to the Continuous Cellular Automata Lenia:

- Explored an under-researched direction in the Continuous Cellular Automata Lenia domain as the primary developer of Leniax, focusing on both algorithm design and implementation.
- Organized interdisciplinary research meetings with mathematicians and ML researchers.
- Published Leniax, a fully-fledged software to facilitate the use of QD algorithms on Lenia.

ANITI | ML research internship
Jun 2020 - Sep 2020 | Location: Toulouse, France

Research internship on Grounded Language Learning in simulated environments at ANITI (Artificial and Natural Intelligence Toulouse Institute):

- Conducted research under the supervision of Rufin VanRullen.
- Created annotated slides for the final presentation
- Project done using PyTorch: https://github.com/ruflab/soc

TF-encrypted | ML engineer
2018 | Location: Remote

Core original contributor to the OpenSource library for privacy-preserving Machine Learning in TensorFlow: tf-encrypted accepted at the NeurIPS 2018 PPML workshop. Associated research paper

- Contributed to the prototype that enabled Cape Privacy to secure its first seed round of funding.
- Developed discretized functions for neural networks, enabling training and inference to be conducted in cryptographic settings for enhanced privacy.
- Played a significant role in the Golang implementation of specific components within the project.

Freelance | ML engineer

2016 - 2019 | Location: Remote

Explored various machine learning techniques, including:

- GANs for video compression (2019)
- Deep reinforcement learning with world models (2017)
- Unsupervised NLP (embedding, token prediction) and CV style transfert (2016)
- Blogger at https://medium.com/@morgangiraud (Main subjects: ML engineering, machine learning, entrepreneurship in research-focused environments)

VizEat, MyLittleParis | Web Developer

Jul 2015 – Jan 2016 | Location: Paris, France

Worked as a PHP/JavaScript freelancer, optimizing technical stacks and structuring technical processes for clients.

ECV Digital | Teacher

Oct 2015 – Jan 2016 | Location: Paris, France

Taught two semester-long classes: PHP/MySQL and Algorithm/JavaScript, introducing students to programming languages, ecosystems, and basic algorithm concepts.

Explee | CTO (Co-founder)

2012 – 2021 | Location: Paris, France

Co-founded the startup Explee as its CTO:

- Developed and managed the entire technical stack for Explee, an online platform for creating animated videos.
- Built and managed a complex distributed web application infrastructure using AWS, Docker, and Kubernetes.
- Designed and developed the JavaScript video rendering engine
- Created computer vision algorithms for automatic drawing.

EDUCATION:

Telecom SudParis - Engineer's Degree (MSc in Computer Science)

2009 - 2012 | Location: Evry, France.

Leading graduate school of engineering and part of the Institut Mines-Télécom, a top institute for Information and Communication Technology in France.

Berthollet - Classes Prepa

2007 - 2009 | Location: Annecy, France.

Intensive courses in advanced mathematics, including algebra and calculus, and physics, preparing for the highly selective entrance exams to the French "Grandes Ecoles."