



# Virgile Boulanger

AUDIO AI ENGINEER

🏠 Paris, France

🌐 [linkedin.com/virgileb](https://www.linkedin.com/virgileb)

## Skills

### SOFTWARE DEV

Python, C++

ML: Pytorch, Tensorflow, ONNX

Mobile: Swift, TFLite, CoreML

### CLOUD & OPS

GCP / AWS

Docker, Kubernetes

Git / Gitlab

ArgoCD, Grafana

### MULTIMEDIA

Ableton Live

Max/MSP

Processing

Adobe Creative Suite

### TOOLS

Notion, Figma

Office, Amplitude

Google Workspace

### LANGUAGES

French: mother tongue

English: fluent

German: basic knowledge

Arabic: beginner

*I am an experienced engineer in the field of audio & multimedia machine learning.  
I am passionate about applying cutting-edge research to innovative products  
leveraging deep learning technologies.*

## Work experience

### Head of Machine Learning - MWM, Paris

MARCH 2020 - JANUARY 2024

- Recruited and managed a 6 people engineering team
- The team covered a broad range of topics and modalities : audio, symbolic, image, video
- In charge of the Machine Learning R&D and product integration roadmaps
- Responsible for iOS and Web prototype development roadmap
- Developed MLOps tools & production stack : on-device and cloud-based inference
- Personal contributor to MIR, audio and MIDI generation topics

### Machine Learning engineer - MWM, Paris

JULY 2019 - MARCH 2020

- R&D on audio AI topics: source separation, music transcription
- Development of the ML stack: data processing, training and inference pipelines
- Collaboration with the product team & development of demonstrators
- ML integration support for mobile development teams

### Machine Learning engineer - Musimap, Brussels

OCTOBER 2017 - JULY 2019

- Development of MIR systems : music tagging, tempo detection, music structure analysis
- Setup efficient data processing and training pipelines for large datasets
- Supervised model QA with musicologists
- Development of the AWS-based inference service

### Research intern - Technische Universität, Berlin

FEBRUARY 2017 - AUGUST 2017

- Worked at Audio Communication Group on music perception and recommendation
- Developed a music recommendation system based on emotions
- Multi modal system merging audio features and lyrics analysis with NLP

## Education

### IRCAM, Université Pierre & Marie Curie, Telecom ParisTech

2016 - 2017

ATIAM Master of Science

Acoustics, signal processing and computer science applied to music

### Arts & Métiers ParisTech

2012 - 2015

Master's Degree in engineering

Computer Science, Electronics, Mechanical Engineering

## Leisure

MUSIC piano, drums, computer music, synthesizers, DJing

EVENTS part of multidisciplinary collectives organizing events in Paris & Amsterdam

SPORTS swimming, cycling, climbing

TRAVELLING