



Alexandre Filiot

French nationality | Lille (France)

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IN BRIEF

I'm an **R&D engineer** with strong expertise in deep learning, **self-supervised learning**, **computer vision** and its application to **bioimage analysis**. At Owkin, I have been working on building our **foundation models**. I'm also actively involved in the development and validation of **AI-guided diagnostics tools**.

INTERESTS

Deep learning • Self-supervised learning • Computer vision • ML & Biostatistics for medical research

PUBLICATIONS

My publications are available online at
🌐 afiliot.github.io/publications

SKILLS

ML STACK

Advanced
DL librairies (PyTorch, Tensorflow) •
MLFlow • DVC • Docker • Hydra •
CI / CD • Slurm • Distributed
training • AWS SageMaker

CODING SKILLS

Advanced
Python • R • Bash • \LaTeX • Git

Familiar
Matlab • SQL • Java • Bokeh

LANGUAGES

English:
Fluent - TOEIC 950/990

EDUCATION

ECOLE NORMALE SUPERIEURE PARIS-SACLAY | MSc

2018-2019 | Cachan (France) | Github 🏠

MSc in Mathematics, Data Science and Machine Learning (MSc MVA)

ENSAE PARIS | GRANDE ÉCOLE

2017-2019 | Paris | Github 🏠

Data Science specialisation : Statistics and Machine Learning

ECOLE CENTRALE DE MARSEILLE (ECM) | GRANDE ÉCOLE

2015-2017 | Marseille

Top french engineering school

WORK EXPERIENCE

OWKIN | SENIOR DATA SCIENTIST

September 2022 - now | Paris

Computer vision and deep learning | ML stack, biostatistics, \LaTeX

- Self-supervised learning and development of foundation models for histology (Phikon, Phikon-v2, H0-mini and more)
- Co-development and validation of AI-guided diagnostic tools for digital pathology (Rlaps Risk BC, MSIntuit CRC in collaboration with MSD)
- Collaborating with pharma companies on strategic research projects
- Actively monitoring latest research in ML & computer vision, contributing to internal ML libraries
- Scientific writing • Technical supervision

INSERM | INRIA @ ENDOMIC | DATA SCIENTIST

December 2021 - August 2022 | Lille

Bioimages analysis and deep learning | ML stack, \LaTeX

- Focus on digital pathology and immunofluorescence
- Omics analysis and multi-omics integration
- Scientific writing • Technical supervision

LILLE UNIVERSITY HOSPITAL @ INCLUDE | DATA SCIENTIST

November 2019 - December 2021 | Lille (France)

Bioimages analysis and deep learning | ML stack, biostatistics, \LaTeX

- Computational pathology
- Statistical design and implementation of medical research studies (clustering, survival analysis, time series, regression models)
- Federated learning with INRIA MAGNET (winners of 2021 *bac-à-sable CNIL*)
- Scientific writing (study protocols, publications)
- Maintenance of a GPU cluster
- Project management (supervision of data scientists, interns, partnerships follow-up)

GUERBET | RESEARCH INTERN

June-November 2019 | Paris

Medical image reconstruction | Python, Bash, Git, \LaTeX

- Intensity enhancement on low contrast injected brain MRI (GAN)
- Brain tumours segmentation as part of BraTS challenge (V-NET)
- Cloud computing (Azure ML)