Alexandre Filiot

French nationality | Lille
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IN BRIEF

My research interests and engineering topics centre on the application of machine learning to bioimages as part of translational research projects. I am dedicated, attentive and eager to improve patients care at my own level.

INTERESTS

Digital pathology (molecular subtyping, outcome prediction) • **Bioimage processing** (whole slide imaging, medical imaging, fluorescence) • **ML and biostatistics for medical research** (survival analysis, clustering, time series) • **R&D project management** (analysis of needs and objectives, design, interaction with clinicians, implementation, dissemination)

SKILLS

COMPUTER SKILLS

Advanced
Python (Pandas, OpenCV, OpenSlide, Scikit-Learn, Tensorflow 2, PyTorch) • R • Bash • LaTeX • Git

Familiar
Matlab • SQL • Java

LANGUAGES

English:
Fluent - TOEIC 950/990

Spanish:
Basic

PUBLICATIONS & TEACHING

Publications available online at 🌐 afiliot.github.io/publications, teaching list available online at 🌐 afiliot.github.io/teaching

MISCELLANEOUS

HOBBIES

• Hiking & mountains • Climbing • Photography

EDUCATION

ECOLE NORMALE SUPERIEURE PARIS-SACLAY | MSc
2018-2019 | Cachan (France) | Github ⓞ
MSc in Mathematics, Data Science and Machine Learning (MSc MVA)

ENSAE PARIS | Dual Degree
2017-2019 | Saclay (France) | Github ⓞ
Data Science specialisation : Statistics and Machine Learning

ECOLE CENTRALE DE MARSEILLE (ECM) | Grande École
2015-2017 | Marseille
Top french engineering school

LYCÉE HENRI WALLON | Preparatory Class
2013-2015 | Valenciennes (France)

WORK EXPERIENCE

LILLE UNIVERSITY HOSPITAL @ INFINITE | Data scientist
December 2021 - now | Lille

Data science for medical research | Python, R, Bash, Git, Java, LaTeX

• Continuity of bioimaging projects started at INCLUDE with a focus on digital pathology and immunofluorescence • Writing and reviewing of scientific publications • Internship supervision

LILLE UNIVERSITY HOSPITAL @ INCLUDE | Data scientist
November 2019 - now | Lille | Gitlab 🦊

Data science for medical research | Python, R, Bash, Git, Java, LaTeX

• Medical image analysis (digital pathology, immunofluorescence) • Statistical design and implementation of medical research studies (clustering, survival analysis, time series, regression models, etc.) • Federated learning with INRIA MAGNET (winners of 2021 *bac-à-sable CNIL* • Writing of protocols and scientific publications • Maintenance of a GPU computing cluster

Project management

• Supervision of a data scientist • Setting up and monitoring partnerships • Writing calls for projects • Monitoring internships

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)

BANQUE DE FRANCE | Data Scientist Intern
June-September 2018 | Paris

Machine learning applied to credit scoring | Python, R, SAS
• Development of a ML pipeline to predict the European credit risk of companies (unbalanced classification, regression) • NLP on audit reports (exploration, visualisation, sentiment analysis)