

Education :

Sept. 2020 Nov. 2023	PhD in Computer Science, Inria Rennes - France <i>Unsupervised deep learning approaches for motion analysis in image sequences</i> <ul style="list-style-type: none">• Published several works in international peer-reviewed venues• Implemented and released open source implementation of my works
Jan. 2019 Sept. 2019	Master of Science, Boston University - United States <i>Concentration in Computer Information Systems - GPA : 3.96/4.</i> <i>Sub-concentration in Data Analytics</i> <ul style="list-style-type: none">• Advanced Machine Learning• Research project comparing Generative Networks and Evolutionary Approaches
Sept. 2014 Dec. 2018	Diplôme d'ingénieur, ECE Paris - France <i>Concentration in Computer Science - Top 5% overall ranking</i> <ul style="list-style-type: none">• Mathematics, Programming, Electronics, Robotics, Data science• Innovative team projects with verbal presentation in front of a jury• Exchange program in University of Newcastle in Australia

Peer-reviewed publications:

CVPR 2023	Unsupervised space-time network for temporally-consistent segmentation of multiple motions <i>Meunier. E & Bouthemy P.</i>
TPAMI 2023	EM-driven unsupervised learning for motion segmentation <i>Meunier E., Badoual A.. & Bouthemy P.</i>
BMVC 2021	Unsupervised computation of salient motion maps from the interpretation of a frame-based classification network <i>Meunier. E & Bouthemy P.</i>
MLCB 2019	Interpreting deep learning models in genomics using genetic algorithm <i>Meunier E., Novakovsky G. & Mostafavi S.</i>

Oral Presentations:

- Presentation, MIA 2023 - Berlin, Germany**
EM-driven network for efficient unsupervised motion segmentation, Meunier E., Badoual A.. & Bouthemy P.
- Presentation, ImmGen Consortium 2019 - Harvard University - Boston, United States**
AI-TAC and DNA sequence generation. Maslova S. & Meunier E.
- Poster, Official Opening of the New Met College Building 2018 - Boston, United States**
A Simple Comput. Approach to Predict Long Term Hourly Electric Consumpt.. Meunier E., Moreau P. & Pinsky E.

Teaching :

Sept. 2021 Sept. 2022	Research Methodology in Computer Vision, EFREI - Paris, France <i>Master Level, lecturer for 40+ students.</i> <ul style="list-style-type: none">• Understanding mathematical reasoning and implementation of recent CV papers.
Sept. 2022 Dec. 2022	Machine Learning, EFREI - Paris, France <i>Master Level, teaching assistant</i>

Summer Schools :

- PRAIRIE / MIAI Artificial Intelligence Summer School 2021 - Online (Paris)**
- ORASIS 2021 - IRIT Francophone conference of young researchers in computer vision - Saint-Ferréol**

Practical and professional experience :

Sept. 2019 Present	Visiting Scholar, University of British Columbia, Mostafavi Lab - Canada <i>Research at the Mostafavi lab focuses on developing computational and statistical approaches for integrating and interpreting diverse types of genomics data.</i> <ul style="list-style-type: none">• Trained Auto-Encoders to build embeddings of DNA sequences based on a regression target variable.• Developed evolutionary approaches to generate sequences conditioned by the activation of a Convolutional Neural Network.
Dec. 2018 Sept. 2019	Freelance IT consultant, Seelk - France <i>Seelk is a company that uses data analytics to help companies to develop their sales on the Internet.</i> <ul style="list-style-type: none">• Developed analytical tools to give insights to companies on how web markets are building rankings and evaluate the impact of business decisions.
May. 2018 Aug. 2018	Researcher Intern, Centre de Ressources et d'Appui sur le Risque Requin - La Reunion Supervisor : Eric Chateauminois, COO <i>The CRA is an organization created by the French Government to lead research on innovative solutions to reduce the risk of shark attacks on La Reunion Island (Indian Ocean).</i> <u>During Internship :</u> <ul style="list-style-type: none">• Reduced by 10x the amount of videos to watch for biologists by developing a motion detection algorithm that works on underwater videos using several tracking techniques. <u>As a consultant (Sept. 2018 - Aug. 2019) :</u> <ul style="list-style-type: none">• Leading the development of shark detection algorithm using a deep learning approach.• Presentation of the results and methodology in front of the scientific board.
June 2017 Aug. 2017	Data Engineer Intern, Datamaran - England Supervisor : Alberto Pacheco, Data Engineer <i>Datamaran is a London-based business intelligence provider that uses data analysis and IA to help businesses to monitor emerging regulatory and reputational risks.</i> <ul style="list-style-type: none">• Integrated 10k+ financial reports into the database, by developing a process that extracts, preprocesses and stores data automatically from selected web sources.• Started a research project aimed to use machine learning techniques to extract opinions on companies from tweets.
April 2016 May 2016	Internship, Zodiac Aerospace - France Supervisor: David Vicart, Production Manager <i>Zodiac Aerospace designs high-technology equipment and systems for critical aircraft functions and in-flight and on-ground safety.</i> <ul style="list-style-type: none">• Improved by 5x technicians speed to access internal documentation by developing a program that automates research in scanned technical documents using Visual Basic.

Personal Projects :

Nov. 2016 Sept. 2018	Leader of project Kolibri which offers transportation solutions to independent producers <i>Kolibri is a project aimed to offer alternative transportation solutions to french independent producers and use cost evaluation techniques to give them insights on their choice.</i> <ul style="list-style-type: none">• Selected as one of 110 projects to be part of the plan to promote innovative initiatives financed by the city of Paris.
---------------------------------	--

Personal Achievements :

Jan. 2018 Feb. 2018	4L Trophy <i>Humanitarian car race between Paris and southern Morocco.</i> <ul style="list-style-type: none">• Bought, repaired and prepared an old Renault R4 for several months for a race in the Sahara desert.• Collaborated with companies to raise money and donated bags of school supplies to Moroccan children.
--------------------------------	---