Pierre Aumjaud

Machine Learning Researcher

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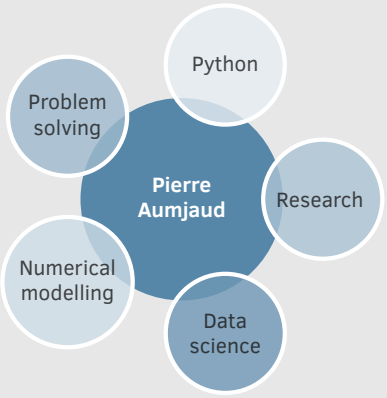
French

Profile overview



Computer Skills

- **Programming Languages**
  Python (8 years) • Matlab • C/C++
- **Frameworks & Libraries**
  Numpy • Scikit-learn • Pytorch • Pandas • Jupyter • Gym • Jupyter • Matplotlib • ROS
- **Software Development**
  Git • Pytest • Travis CI • Docker • Anaconda
- **Web Development**
  HTML/CSS • PHP/SQL • Wordpress • Jekyll
- **Other**
  Linux/Bash • Arduino • Markdown • LaTeX

Languages

– French	C2
– English	C1
– Spanish	C1

Social Network

linkedin.com/in/pierreaumjaud
github.com/PierreExeter
pierreexeter.github.io

About me

As an engineer passionate about **programming**, I thrive on using computers to find non-intuitive solutions to technical problems. During the last 8 years, I have been developing **machine learning** software to solve engineering problems. In particular, I applied **evolutionary algorithms**, **anomaly detection** approaches and **reinforcement learning** to material engineering, manufacturing and robotics problems.

Work Experience

2021 – 2025 **Volunteer Work**
20 volunteer experiences in 8 countries: work in NGOs, fundraising for the construction of a school, teaching English, creating websites, permaculture, and natural building.

2017 – 2021 **Marie Curie Research Fellow** University College Dublin, Ireland
Anomaly detection and condition monitoring of a manufacturing process using time series and machine learning. Robotic trajectory planning using a reinforcement learning approach.
Focus: *machine learning, reinforcement learning, time series, anomaly detection, robotics.*

2016 – 2017 **Postdoctoral Research Fellow** University College Dublin, Ireland
Numerical modelling and evolutionary and topology optimisation of composite materials.
Focus: *evolutionary optimisation, topology optimisation, finite element analysis, composite materials.*

2012 – 2015 **Teaching Assistant** University of Exeter, UK
Solid mechanics, computational engineering, Computer-Aided Design.

2011 – 2011 **Project Management Intern** Airbus, France
Harmonisation of CatiaV5 configuration settings for the A350 programme

Education

Academia

2012 – 2016 **PhD Mechanical Engineering** University of Exeter, UK
Numerical modelling and computational optimisation of vibrating aerospace structures.
Focus: *evolutionary optimisation, exploratory data analysis, data visualisation, Python, numerical analysis.*

2009 – 2012 **MSc Mechanical Engineering** SUPMICROTECH-ENSMM, France
National graduate engineering school in mechanics and microtechnologies.
Modules: *mechanical engineering, computer science, engineering mathematics, electronics.*

2007 – 2009 **BSc Engineering – 'classes préparatoires'** Lycée Arago, France
Modules: *mathematics, physics, chemistry, engineering*

Online Courses

2020 **Practical reinforcement learning** Coursera
Focus: *model-free reinforcement learning, policy-based methods.*

2020 **Machine learning** Coursera
Focus: *supervised learning (regression and classification), neural networks, anomaly detection, unsupervised learning, dimensionality reduction, regularisation.*

Extra-Curricular Activities

Outdoors	Trekking, travelling, permaculture, geocaching
Technology	Robotics (Arduino and Raspberry Pi), Kaggle competitions
Hobbies	Competitive badminton, yoga, guitar