



PROFILE

French Engineer specialized in Machine Learning, I can cover a broad spectrum of competence. I have experience in AI applications Research & Development, up to their effective deployment. Passionate about "Neuromorphic" technologies -inspired by the human brain- my ultimate objective is to work at the interface between Neurosciences and Artificial Intelligence.

For now, I am undertaking a PhD thesis combining Machine Learning, Bayesian inference and Neuroimaging.

Ardent about the field of AI and its promises, I am determined to dedicate my technical skills in productive service to our society and to become one of the useful pioneers for an AI-powered, more responsible, and more equitable world!

CONTACT

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HOBBIES

Active paramedic
Martial arts (Jiu-Jitsu)
Scuba Diving (Rescue Diver)
Music (Jazz, Indie, Electronic)
Video games (Competitive)
Tabletop roleplaying

ROUILLARD LOUIS

Adaptive Machine Learning R&D Scientist

WORK & RESEARCH EXPERIENCE

INRIA Parietal – PhD in structured Variational Inference for large-scale problems 2020 → now

- Working under the supervision of Dr Demian Wassermann on the NeuroLang project, building a probabilistic logic programming Python library for Neurosciences
- Investigating streamlined Bayesian posterior estimation in the context of complex high-dimensional hierarchical models, with applications in Neuroimaging
- Developing expressive density estimators lifting graphical model's structure, and algorithms to automate the detection of such exploitable structure

Uptime – Data scientist for elevator predictive maintenance 2019 → 2020 (6 months)

- Fully engineered a custom ML pipeline to collect the data from the company's IoT and using it to perform breakdown detection on elevators.
- Engaged in a dual approach, both in an agile software team delivery process, and in an individual R&D process
- ML modelling and exploitation of streams of discrete asynchronous events sent by the IoT devices
- Also played a role of BI support to provide meaningful insights to the product team through comprehensive, actionable statistical analysis.

GrAI Matter Labs – ML & Applications R&D Engineer 2018 → 2019 (1 year)

- End-to-end design of embedded brain-inspired Machine Learning and algorithmic systems for the chip to perform online in a fast and energy efficient manner
- CV - tracking and video classification, event-based processing; NLP, keyword spotting and voice commands; neural networks quantization scheme and ML API design

Imperial College - Master Thesis in Autonomous Robotics Summer 2018

- Working under the supervision of Prof. Petar Kormushev on the full development of an autonomous Air-Hockey playing robot arm
- Designing from scratch image processing tools, Bayesian prediction, motion planning and game strategies for fast-frequency applications
- Successful publication in TAROS at the end of the thesis on the sole basis of the project

EDUCATION

Imperial College London, UK 2017 → 2018

- MSc *Human and biological robotics* - Distinction - Valedictorian
- Majoring in Machine Learning, computational neurosciences, Brain Machine Interfaces and Intelligent Robotics

Ecole Polytechnique, FRANCE 2014 → 2018

- Ingénieur Polytechnicien* & International dual-degree MSc – GPA 3.97/4.0

SKILLS

French :	Native language
English :	Fluent (C2) – GRE - TOEFL - MUN events - 1.5 year in the UK
German :	Upper intermediate (B2-C1)
Basic :	Microsoft Office, Google suite, Photoshop, Git, Linux, SLURM
Scientific :	Matlab, OCaml, LaTeX, academic publication
Programming :	Python, C++, ROS, SQL, Arduino
Backend :	Flask-SQLAlchemy
ML (Python):	Tensorflow-Keras, Numpy, Scikit-learn, OpenCV, Pytorch, Pyro, TFP
Others :	French Driving license, first aid PSE2