

# JOËL ROMAN KY

## Machine learning Researcher - Data scientist

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📍 Lannion, France



## EXPERIENCE

### Researcher

#### Orange Innovation Labs

📅 Nov 2021 – Nov 2024

📍 Lannion, France

- Data science research project for enhancing the Quality of Experience (QoE) for low-latency applications within mobile and WiFi networks.
- Literature review on research topics: 5G networks, low-latency applications, representation learning, unsupervised learning.
- Implementation of novel deep learning techniques for anomaly detection and diagnosis of QoE degradation issues on low-latency applications.
- **Tools:** Pytorch, Scikit-learn, Numpy, Pandas, Matplotlib, GCP, Vertex AI, Linux, 5G, WiFi

### Machine Learning Research Intern

#### Vitesco Technologies

📅 Apr 2021 – Sept 2021

📍 Toulouse, France

- Research internship in academic collaboration with ANITI, IMT and LAPLACE on PEM fuel cell modeling and Remaining Useful Life (RUL) estimation of fuel cells
- **Tools:** Pytorch, Scikit-learn, Numpy, Pandas, Matplotlib, AWS

### Research Project in AI

#### Groupe SII

📅 Nov 2020 – Mar 2021

📍 Toulouse, France

- Design of algorithms for face detection from a drone, positioning using distance estimation methods and Kalman filters, and the development of an assistance chatbot.
- **Tools:** Python, TensorFlow, Unreal Engine, AirSim

### R&D Deep Learning Intern

#### INSPI

📅 June 2020 – Sept 2020

📍 Toulouse, France

- Distributed training and deployment of deep learning models for indoor image segmentation models.
- **Tools:** Python, Tensorflow, PyTorch, Caffe, AWS, Flask

## EDUCATION

### Doctor of Philosophy in Computer Science

#### Lorraine University

📅 Oct 2021 – Now

📍 Nancy, France

### Master of Science in Computer Science

#### University Toulouse 3 Paul Sabatier

📅 Sept 2020 – Sept 2021

📍 Toulouse, France

### Engineer in Computer Science and Telecommunications

#### Toulouse INP-ENSEEIH

📅 Sept 2018 – Sept 2021

📍 Toulouse, France

## RESEARCH INTERESTS

- Anomaly detection and AI security
- Machine Learning (Time series, Clustering, Meta-learning, Computer Vision)
- Representation learning (Unsupervised learning, Self-supervised learning)
- Explainable AI (XAI), Causality

## PUBLICATIONS

More details on [Google Scholar](#)

## COMPUTER SKILLS

### • Programming

Python Java R Matlab LaTeX

SQL C/C++ Markdown HTML

### • Framework

GCP AWS Docker Git Spark

## STRENGTHS

Team Work Critical thinking

Autonomy Rigor Communication

Project management

## AWARDS

- Public Prize at Orange competition **Ma thèse en 3mn**
- Prize at Challenge MetaDL at NeurIPS 2022 Competition track.
- Best Poster Presentation award at 10th TMA PhD school, Enschede, Netherlands 2022.

## LANGUAGES

French

English

German

Japanese



## HOBBIES

E-Gaming Piano Volley-Ball

Badminton Ping Pong