# Fabien Furfaro | Lead Data & Al Engineer

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## **Profile**

With a PhD in Physics specializing in computer vision and statistics, I have a strong background in electronics, gained at Enedis and Vinci. My experience includes designing and implementing AI optimization solutions, leading reinforcement learning and generative AI projects at Capgemini, and developing recommendation systems based on constrained optimization at Thales. Currently, I lead pre-sales and solution architecture for aerospace clients.

## **Key Skills**

**Technical:** Al, ML, Deep Learning, Reinforcement Learning, Generative Al, NLP, Computer Vision, Anomaly Detection,

Constrained Optimization, Python, PyTorch, TensorFlow, Simulink, MLFlow, Azure, Docker, GitLab, CAN Bus.

Functional: Research & Science, Agile PM, V-cycle, Backlog Refinement, Business model, MLOps.

Languages: French (native), English (professional)

## **Professional Experience**

#### **Aerospace**

Al Expert 06/2025–Present

O Technical lead on AI topics for 3D image-based resetting projects.

Pre-Sales Solution Architect

O Collaborated with sales teams to translate business needs into technical solutions and demos.

Designed and presented technical architectures for proposals and developed proof-of-concept to support strategic decision-making.

#### Capgemini

Lead Data Scientist 01/2025–06/2025

o Architected a recommendation system integrating constrained optimization and anomaly detection.

Managed ML and data industrialization in defense environment.

#### **Thales Group**

Senior Data Scientist 06/2024–01/2025

O Developed and deployed machine learning and deep learning solutions from data to production.

O Managed MLOps, statistics, and agile workflows.

#### Capgemini Engineering (APA)

Project Leader - Al Researcher

O Developed automotive cooling systems and intelligent supervision.

O Led project management and research activities.

## INSEP / CNAM

Machine Learning Researcher

09/2019-09/2022

09/2022-09/2024

O Created evolutionary algorithms for neural network functionalization.

## ENS (Grande écoles)

Internship in Biotech

04/2014-09/2014

O Studied the collective behavior of bacteria using game theory.

## Axians (Vinci) / ERDF (Enedis)

Electronic Designer

2008-2012

## **Education**

#### Université de Paris Cité

PhD in Physics, specializing in Complex Systems

2015–2019

O How to control and track cell differentiation in microfluidics chip.

#### Université de Paris Cité

Master's Degree in Applied Physics

2013-2015

## Université Paris Diderot

Bachelor's Degree in Physics

2012-2013

Lycée St Nicolas

BTS in Electrotechnics

2010-2012