

# VALÉRIAN MANGÉ

PhD student in signal processing, specialized  
in data fusion and anomaly detection

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Valérian Mangé



## PROFESSIONAL EXPERIENCE

Thesis CIFRE-DGA in Signal Processing

TéSA / Hensoldt Nexeya France (HNF)

Oct 2022 - Dec 2025

Toulouse, France

- Combining AIS/radar/ESM data for maritime surveillance
- Detect abnormal ship trajectories
- Thesis for HNF supervised by the TéSA laboratory and co-financed by the French Defense Agency (DGA)

Internship Big Data / Data Analyst

Valeo

April 2022 - Sept 2022

Créteil, France

- Analysis of the integration chain with Big Data processing
- Study of the contribution of AI in this analysis

## EDUCATION

PhD in signal processing

TéSA / Hensoldt Nexeya France

Oct 2022 - Dec 2025

Toulouse, France

FUSCHIA (Fusion and correlation of heterogeneous data with artificial intelligence)

Computational Science and Engineering (Exchange)

École Polytechnique Fédérale de Lausanne (EPFL)

Sept 2021 - Feb 2022

Lausanne, Switzerland

Courses on artificial intelligence, data analysis, computational methods applied to quantum physics, software engineering, and image processing

Master's Degree in Computer Science

ENSEEIH

Sept 2019 - Sept 2022

Toulouse, France

Engineering school in computer science with specialization in applied mathematics, high performance computing and Big Data

Middle School

Quality School International (QSI)

Sept 2008 - July 2012

Shenzhen, China

International American school, member of the QSI network

## ABOUT ME

"PhD student in signal processing with international experience, ready to take on your challenges"

## SKILLS

Soft

Teaching

Cultural intelligence

Assertiveness

Thinking outside the box

Prioritization and ranking

Hard

Python

Matlab

Data fusion

Anomaly detection

Statistics

## LANGUAGES

French

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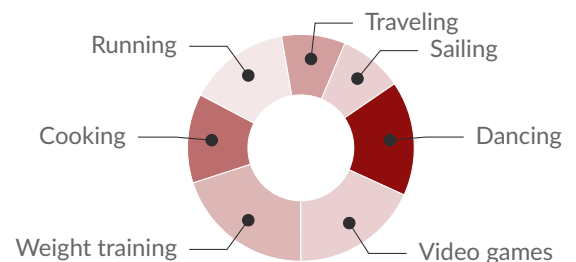
English

● ● ● ● ● ●

Spanish

● ● ● ● ● ●

## HOBBIES



## REFERENCES

Prof. Jean-Yves Tourneret

@ ENEEIH

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Prof. François Vincent

@ ISAE-SUPAERO

francois.vincent@isae-supero.fr

## Journal Articles

- V. Mangé, J.-Y. Tournet, F. Vincent, L. Mirambell, and F. Manzoni Vieira, “**Anomaly Detection in Ship Trajectories Using Machine Learning and Dynamic Time Warping**,” *Engineering Applications of Artificial Intelligence*, 2025.
- C. Balsa, M. Silveira, V. Mangé, and P. A. G. Piloto, “**Modelling the Thermal Effects on Structural Components of Composite Slabs under Fire Conditions**,” *Computation*, vol. 10, no. 6, 2022.

## Conference Proceedings

- V. Mangé, Y. Anezin, J.-Y. Tournet, F. Vincent, L. Mirambell, and F. Manzoni Vieira, “**Detecting Abnormal Ship Trajectories using Functional Isolation Forests and Dynamic Time Warping**,” in *EU-SIPCO*, Lyon, France, 2024.
- V. Mangé, J.-Y. Tournet, F. Vincent, L. Mirambell, and F. Manzoni Vieira, “**Track-to-Track AIS / Radar Association and Uncertainty Estimation by Coherent Point Drift**,” in *EUSIPCO*, Lyon, France, 2024.
- R. Mignot, V. Mangé, K. Usevich, M. Clausel, J.-Y. Tournet, and F. Vincent, “**Anomaly Detection Using Multiscale Signatures**,” in *EUSIPCO*, Lyon, France, 2024.
- V. Mangé, J.-Y. Tournet, F. Vincent, L. Mirambell, F. Manzoni Vieira, and B. Pilastre, “**Détection de comportements anormaux dans des trajectoires de navires avec One-Class SVM et Dynamic Time Warping**,” in *Colloque Grets*, Grenoble, France, 2023.