

THÉO TABURET

PhD graduate in Image Processing & Applied Mathematics, specialized in computer vision and deep learning for fraud detection and anomaly analysis.

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📍 Paris, France
🚗 Car driving license (w/o vehicle)



WORK EXPERIENCE

🖥️ Postdoctoral Researcher in Computer Vision and Image Processing

University of La Rochelle - L3I Laboratory / Yooz

📅 2021 – 2023 📍 La Rochelle, France

- 🖥️ Fraud detection in business documents using deep learning techniques.
- ⚙️ Detection of **double compression** through siamese CNN networks and the use of steganalysis to identify image manipulations and anomalies.
- 👥 Integration of algorithms using FastAPI.

🎓 Lecturer (Courses & Tutorials)

University of La Rochelle & Excelia

📅 2022 – 2023 📍 La Rochelle, France

- 🎓 Undergraduate Level (L1 & L2) - Web Technologies.
- 🎓 Master's Level (M2) - Introduction to Computer Vision.

🔧 R&D Mechanical Engineering Apprenticeship

Synerlink S.A.

📅 2014 – 2017 📍 Cergy, France

- 🔧 Design, dimensioning, and optimization of thermoforming molds.

EDUCATION

🎓 PhD in Applied Mathematics (Steganography)

École Centrale de Lille - CRISTAL Laboratory

📅 2017 – 2020 📍 Lille, France

"Steganographic methods based on sensor noise analysis": Research on novel techniques for embedding hidden information in images.

🎓 Master of Science in Digital Signal and Image Processing

Cranfield University

📅 2016 – 2017 📍 Cranfield, UK

Studied digital signal processing methods with a specialization in image analysis.

🎓 Engineering Degree (Generalist)

École Supérieure des Technologies Industrielles Avancées

📅 2014 – 2017 📍 Bidart, France

Multidisciplinary engineering program (completed as part of a work-study program), with skills developed in mechanics, electronics, and computer science.

PUBLICATIONS

🔊 Steganography in the JPEG Domain:

Development of natural steganographic methods using JPEG compression and DCT coefficients, minimizing detection risks. Key publications in *TIFS* and *IHMMSec*.

📄 Document Forgery Detection:

Advanced algorithms for detecting JPEG double compression artifacts, applied to financial and legal document forgery. Presented in *ICPR* and *ICDAR*.

📦 Datasets and Practical Tools:

Creation of datasets (e.g., receipt fraud detection) and open-source Python implementations to encourage reproducibility.

🎓 Google Scholar Profile

SKILLS

Technical Skills

Machine Learning Deep Learning Computer Vision
Image Processing CNN Anomaly Detection
Segmentation Object Detection

Programming Languages

Python C/C++ HTML/CSS/JS SQL MATLAB
Bash

Frameworks and Libraries

PyTorch TensorFlow scikit-learn OpenCV
Keras FastAPI

Development and Deployment Tools

Git Docker CI/CD Pipelines GitHub Actions
GitLab CI/CD

LANGUAGES

English



ASSOCIATIVE WORK

🚲 Pignon des Charentes (Creation & Management)

Monthly organization of bicycle-based riddle hunts through the streets of La Rochelle, leading to a final meeting point (+100 participants).