VETTER THOMAS

Mechatronics Engineer

Specialized in **Embedded Systems** and **Machine Learning**

GENERAL INFORMATION

Gewerbestraße 14, Kehl
thomasvet4@gmail.com
+ 49 17 77 70 34 78
LinkedIn

SOFT SKILLS

Autonomy, adaptability, organized, and cleanliness.

LANGUAGES

- French (fluent)
- English (fluent)
- German (B2)
- Vietnamese (limited)

CERTIFICATIONS

- LanguageCert, C2 level in English

COMPETENCES

- TinyML, Edge AI
- Hardware and Software FPGA configuration
- Embedded Systems (STM32, TI)
- Signal Processing
- Control Theory

TOOLS

- STM32 ecosystem
- C++ / C
- Python, PyTorch
- Robot Operating System (ROS2)
- MATLAB

INTERESTS

Table Tennis
Automotive Industry
Video Games

SUMMARY

As my internship at iDEMoov, where I specialized in TinyML, draws to a close, I will soon begin a PhD focused on developing a novel hardware configuration for optimized neural network deployment.

EDUCATION

Master in Mechatronics, Energy and Intelligent Systems
Université de Strasbourg, 2023-2025

Bachelor in Engineering Sciences
Université de Strasbourg, 2020-2023

High school diploma in sciences
Lycée la Doctrine Chrétienne, 2017-2020

WORK EXPERIENCE

IiDEMoov (2025)
Embedded AI Intern
Entzheim, 6 months

Developed and optimized a lightweight embedded AI–based fall-detection algorithm on an STM32L4 microcontroller, achieving real-time inference with minimal memory and energy footprints.

ICUBE (2024)
Research Intern
Strasbourg, Illkirch-Graffenstaden, 3 months

Estimation of atmospheric dispersion during fires using an Extended Kalman Filter, based on the well-known Gaussian Puff model.

IREPA LASER (2023)
IT Intern
Strasbourg, Illkirch, 3 months

Creation of technical indicators using information from industrial machines, achieved through the use of web APIs and BIRT.

UNIVERSITY PROJECTS

Anomaly detection on images, Master 2 (2025)

Anomaly detection on milling images, in a semi-supervised setting. Tested different models such as : CAE, CAAE, SAGAN, Vision Transformer. We will then fine-tune a model in order to use it in an embedded environment.

Data Challenge, Master 2 (2024)

Took part in University organized Data Challenge. Subject consisted of anomaly detection on time series data, using semi-supervised models (AE, LSTM-AE, OcSVM, etc.).

Custom Turtlebot3, Master 1 (2024)

Turtlebot3 with custom navigation algorithms (APF, Dijkstra's Algorithm...) and OpenCR configuration. Implemented using ROS2 with C++ and Python nodes.