

Florian Wellmeyer

Robotics, Embedded Systems Engineer



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Portfolio Website please click here

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Profile

French - German

PROFILE

Seeking an engineering role in robotics or embedded systems, bringing hands-on experience in the field and a strong interest in autonomous technologies and marine systems.

SKILLS

Programming Languages

- Python
- C/C++
- C#
- Java
- SQL
- Assembly
- MPEG
- URScript

Software

- ROS
- RIVZ
- RQT
- Linux
- RTDE (Real Time Data Exchange)
- Unity
- RobotStudio (ABB)
- STM32CubeIDE
- Arduino
- LT Spice
- CANape / CANoe/ ODIS
- Artifactory
- Unity Pro
- Catia/ SolidWorks/ Fusion 360

LANGUAGES

English — B2 Level, TOEIC

French — Fluent

German — B1 Level

Arabic (Lebanese) — Starting

PROFESSIONAL EXPERIENCE

INTERDIGITAL R&D, HAPTIC ENGINEER INTERNSHIP

04/2025 – 09/2025 | RENNES, FRANCE

Development of demonstrators and tools showcasing InterDigital's haptic encoding solutions.

- Implemented control systems for a Universal Robot arm (UR3e), interfaced with a Geomagic Touch device.
- Explored and tested various haptic standards, including the MPEG haptic format.
- Collaborated with researchers to enhance VR experiences and haptic encoding techniques.
- Contributed to system integration and communication via TCP/Ethernet.

Skills: robotics, Python, C#, C++, TCP/Ethernet communication, MPEG haptics, UR3e, RTDE, Polyscope.

TECHNOLOGY AND STRATEGY (T&S) BOSCH, ASSISTANT ENGINEER INTERNSHIP

03/2024 – 07/2024 | STUTTGART, GERMANY

Support for the validation of Bosch's parking assistance systems for the Volkswagen Group (VW, Audi, Skoda, Cupra).

- Performed real-world tests to evaluate the performance and compliance of ADAS (Advanced Driver Assistance Systems).
- Analyzed test data and proposed improvements to enhance system reliability.
- Contributed to the development and automation of test procedures for future validation of automated parking systems.

Skills: CANape, ODIS, CAN bus communication, verification & validation processes.

EDUCATION

NATIONALE ENGINEERING SCHOOL OF BREST (ENIB), ENGINEER DIPLOMA

2025 | (Academical Erasmus semester at University of Stavanger, Norway 2023)

- Virtual Reality Course - Haptic technologies, Presence, and Immersion in VR
- Modelling in Robotics and Autonomous Mobile Robotics Course
- Embedded systems

UNIVERSITY OF BRETAGNE OCCIDENTALE,

MBA DIPLOMA - MASTER OF BUSINESS AND ADMINISTRATION

2025

JOSEPH VALLOT HIGH SCHOOL, BACHELOR'S DEGREE

2020

Projects - For more details, please visit my portfolio website.

Mobile Robot – ROS2

Development of an autonomous robot with manual, random, and color-tracking modes. Motor control, sensor management, and LCD handled via STM32; image processing and Wi-Fi interface a PC-based HMI.

Skills: STM32, RTOS, ROS2, Raspberry Pi, OpenCV, UART, Wi-Fi, HMI.

Sensor Network

Design of a multi-sensor system interconnected via CAN bus. Physical measurements collected by multiple STM32 boards and transmitted to a host PC using CAN frames.

Skills: STM32, CAN bus, I2C.

Pick-and-Place System – ABB Robot

Developed a pick-and-place application using an ABB robot. Integrated object detection with Python and OpenCV, and programmed the robot's movements in RobotStudio for automated task execution.

Skills: RobotStudio, Python, OpenCV.

Underwater Sound Classification – In collaboration with ReefPulse

Developed a machine learning pipeline to classify marine species based on reef audio recordings. Processed and analyzed .wav files to extract features and train AI models for species identification.

Skills: Machine Learning, Audio Processing, AI Models, WAV File Analysis.

Portfolio Website ↗

https://florianwellme.github.io/Portfolio_Florian_Wellmeyer/ ↗