

Double-degree Mechatronics and AI Engineer

Rayane GETA — Seeking a robotics/IA engineer position

📍 Open to relocation ✉ rayane.geta@gmail.com ☎ +33763570092 💻 rayane-geta 🌐 rayane-maker.github.io

Education

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| ENSTA (National Institute of Advanced Technologies) , Master of Science | Brest, France |
| • Relevant Coursework: Computer Vision, Radar and Remote Sensing, Software Engineering, Machine Learning, Linear and Nonlinear Optimization | September 2023 - 2025 |
| ENSIL-ENSCI (National Graduate Engineering School of Limoges) , Master of Science | Limoges, France |
| • Relevant Coursework: Control Systems, Robotics, Mechanical Design. | September 2021 - 2025 |

Professional Experience

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| Institut de Robòtica i Informàtica Industrial (IRI) , Robotics and AI Engineer Intern | Barcelona, Spain |
| • Extended an assistive robotic feeding system to handle diverse unseen food types using ROS1 and BehaviorTree.CPP. | May 2025 – Nov. 2025 |
| • Built a semi-automated food manipulation sandbox enabling simultaneous demonstration learning and systematic dataset generation. | |
| • Designed embedded vision pipelines for food segmentation, texture classification plate detection, and overflow analysis leveraging classical computer vision and CNN (design and training). | |
| • Implemented custom collision detection/response system enabling safe collaborative robot behavior and touch sensing. | |
| Aerix Systems , Embedded System and AI Engineer Intern | Bordeaux, France |
| • Developed monocular visual odometry for an omnidirectional drone in C++. | April 2024 – Aug. 2024 |
| • Designed multi-threaded real-time odometry software architecture. | |
| • Integrated a deep-neural network for 3D vision and odometry enhancement. | |
| • Documented the software with Doxygen. | |
| CRITT Automatisat[i]on & Robotique , Mechatronic Engineer Intern | Albi, France |
| • Designed, machined and assembled mechanical parts for industrial machines. | May 2023 – Aug. 2023 |
| • Developed HMI software and programmed PLCs using Siemens TIA Portal. | |

Academic and Personal Projects

- Multicam - School group project**
- Supervised development of a multi-camera (ESP32-Cam) system for multi-people safety monitoring using YOLOv8.
 - Implemented custom voting based multi-person tracker robust to occlusions.

More projects spanning robotics, AI, and software development in my portfolio: rayane-maker.github.io

Skills

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| Coding Languages C/C++, JAVA, Python, Javascript, Matlab | DevOps Git, Docker, Google Colab |
| Frameworks ROS, BehaviorTree.CPP, Pytorch, Tensorflow | Languages English, French, Spanish. |
| Control System Matlab, Simulink, Amesim, CoppeliaSim | Soft Skills Teamwork, Self-Learning, Critical |
| Mechanical Design Solidworks, 3DEXperience, Catia | Thinking, Problem Solving, Communication Skills. |

Hobbies and Activities

- Hip Hop Dance (2015 - Present, Public performances, Styles : Animation, Popping, Krump)
- Shell Eco-marathon (2022, Main Pilot, Location: Assen, Netherlands)