

Skills

Coding Languages C/C++, JAVA, Python, Javascript, Matlab
AI Frameworks Pytorch, Tensorflow, Jetson Inference
Control System Matlab, Simulink, Amesim, CoppeliaSim
Mechanical Design Solidworks, Catia, 3DExperience

DevOps Git, Docker, Google Colab
Languages English, French, Spanish.
Soft Skills Teamwork, Self-Learning, Critical Thinking, Problem Solving, Communication Skills.

Education

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

Experience

Aerix Systems , Embedded System and AI Engineer Intern	Bordeaux, France April 2024 – August 2024
• Developed monocular visual odometry for an omnidirectional drone in C++.	
• Integrated a neural network for 3D vision and odometry enhancement.	
• Designed multi-threaded real-time software architecture with SOLID principles.	
CRITT Automatisatation & Robotique , Mechatronic Engineer Intern	Albi, France May 2023 – August 2023
• Developed HMI software and programmed PLCs using Siemens TIA Portal.	
• Designed, machined and assembled mechanical parts for industrial machines.	

Main Projects

National Student Entrepreneur (SNEE)

- Developing an application catering to dancers and choreographers' needs.
- Recognized by Pepite Bretagne for my entrepreneurial initiative.
- Gained access to resources, mentoring, and networks to support project development.

Pan-Tilt Tracker

- Created a motorized smartphone holder with auto-tracking for capturing my dance sessions.
- Developed the Android app for video capture and tracking. Designed and assembled 3D-printed parts.

Multicam

- Deployed a multi-camera system for people tracking and monitoring using YOLO.
- Programmed C++ firmware for ESP32-Cam and implemented network management for seamless operation.

Vehicle simulator game

- Developed a vehicle simulator game using Unity, with custom drivetrain and wheel physics simulations.
- Implemented classic AI algorithms for virtual opponents, leveraging geometry-based methods.

Additional projects and informations can be found in my portfolio: rayane-maker.github.io

Hobbies and Activities

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