

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
• **Relevant Coursework:** Software Engineering, Deep Learning, Machine Learning, Computer Vision, Radar and Remote Sensing. Brest, France
August 2023 - Present

ENSIL-ENSCI (National Graduate Engineering School of Limoges), Master of Science
• **Relevant Coursework:** Control Systems, Robotics, Mechanical Design. Limoges, France
September 2021 - Present

Experience

Aerix Systems, Embedded System Engineer Intern
• 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. Bordeaux, France
April 2024 – August 2024

CRITT Automatisatation & Robotique, Mechatronic Engineer Intern
• Developed HMI software and programmed PLCs using Siemens TIA Portal.
• Designed, machined and assembled mechanical parts for industrial machines. Albi, France
May 2023 – August 2023

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)