

# AI and Mechatronics Engineering Student

## Rayane GETA — Seeking a 6 month-intership (Final year project)

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

### Education

---

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

### Experience

---

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

### Skills

---

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

### Main Projects

---

- 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](https://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)