Ousmane THIONGANE

**AI & Robotics Engineer specializing in Computer Vision/Perception
looking for a full-time position.**

France ☒ ousmane.thiongane@outlook.com 📞 +33 (0)6 78 18 48 00 in ousmane-thiongane Mowibox

EDUCATION

Three-year Postgraduate Engineering Degree in Electronics and Computer Science   *Cergy, France*
ENSEA (Ecole Nationale Superieure de l'Electronique et de ses Applications)   Sep 2022 – Dec 2025

- o Major in Computer Science, Signal Processing and Electronics. Specialization in Image Processing & Virtual Reality.
- o Head of the robotics association – Competed in the French Robotics Cup and school hackathons; organized hands-on workshops on embedded programming, electronic PCB routing, and soldering.

Exchange Program in Artificial Intelligence & Robotics   *Rome, Italy*
Sapienza University of Rome   Sep 2024 – Feb 2025

- o **Coursework**: Artificial Intelligence, Robotics, Computer Vision, Reinforcement Learning and Machine Learning.
- o Winner of the "Why did you choose Sapienza?" competition – Public presentation of a self-built quadrupedal robot.

SKILLS

Programming Languages: Python (PyTorch, Keras, Tensorflow, Scikit-learn, Gym, OpenCV, Pytest), C/C++, HTML/CSS.
Other Skills: Image Processing, Deep Learning, Control, Optimization, Camera Calibration, Transformers (VLM/VLA), ROS2, Docker, STM32 Cube IDE, Linux, Git/GitHub, CI/CD, PCB Design (KiCAD), VSCode, Unity 3D, Autodesk Sketchbook.

EXPERIENCE

Robotics R&D Engineer   *Bordeaux, France*
Hugging Face x Pollen Robotics   Mar 2025 – Sep 2025

- o State of the art (SOTA) on methods for the constrained formulation of the inverse kinematics problem on humanoid robot.
- o Formulation of a general constrained quadratic optimization problem in the context of teleoperation.
- o Software implementation, simulation tests and evaluation on the real robot.

Systems Engineering Assistant/Physical Anti-Intrusion Solutions   *Osny, France*
IDEMIA   Apr 2024 – Aug 2024

- o Defined and documented use scenarios for the product and identified potential threats.
- o Realization of a Python software workflow to process and interpret sensor signals from prototype (filtering & classification).

Product Testing & Qualification Engineering Intern   *Osny, France*
IDEMIA   Jun 2023 – Aug 2023

- o Conducted functional qualification tests on biometric terminals. Prepared test reports based on tests plans.
- o Processed biometric fingerprint image data and analyzed data frames.

PROJECTS

- o **Chroma | May 2025 – Present:** Built a website to share technical knowledge and computer vision materials.
- o **ArUco Map Locator | Dec 2024- Feb 2025:** Implemented a ROS 2 ArUco-based robot localization system.
- o **Checkers-RL | Dec 2024 – Feb 2025:** Designed a reinforcement learning agent capable of solving checkers.
- o **RoboBox |Dec 2024 – Feb 2025:** Developed a Python module for robotic applications (kinematics, motion).
- o **Pyphobos | May 2024:** Programmed software for an autonomous robot competing in the French Robotics Cup.

CERTIFICATIONS

Python for Computer Vision with OpenCV and Deep Learning (Udemy) – 2024   **First AID (PSC1)** – 2023

LANGUAGES

French – Native   **English** – Proficient, C1 Level | (TOEIC 910/990)   **Spanish** – Working Knowledge, B1 Level

References available on request.