

Khady Yade Diouf

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PROFILE

Computer Science Engineering student at Universitat Rovira i Virgili, specializing in data pipelines, visualization and engineering tooling, with hands-on experience in robotics, and large-scale data analysis through research projects, hackathons and industry internships. Selected for an international exchange at HEIG-VD (Switzerland).

EDUCATION

BSc in Computer Engineering **September 2023 - Present**
Universitat Rovira i Virgili Tarragona, Spain

Exchange Semester **February 2025 - June 2025**
Haute École d'Ingénierie et de Gestion du Canton de Vaud (HEIG-VD) Lausanne, Switzerland

Higher Technical Diploma in Automation & Robotics **2021 - 2023**
Institut Comte de Rius Tarragona, Spain

ENGINEERING EXPERIENCE

Software Engineering Intern - GeoFem Research Project **June 2025 - Present**
Universitat Rovira i Virgili Tarragona, Spain

- Built a **data-driven web platform** for collecting, modeling and visualizing information related to femicide case data, used by an interdisciplinary research team.
- Designed **SQL data models** and **data pipelines** to manage complex relational datasets about victims.
- Implemented **interactive visualizations** to support non-technical researchers in exploring patterns.

Industrial Automation Intern (PLCs) **June 2022 - May 2023**
Repsol Tarragona, Spain

- Developed and maintained **control software** for industrial automation systems.
- Implemented logic for **real-time monitoring and fault diagnosis** in production lines.
- Optimized automated processes and participated in **on-site commissioning** of industrial systems.

KEY PROJECTS

SkyWalker - Autonomous Robot Navigation System **3rd Prize at Robotech organized by TIC Cluster Sud**

- Implemented in **C** the navigation and obstacle-avoidance logic of a robot designed to collect waste on Tarragona beaches.
- Processed real-time **sensor data** and designed the **task scheduling flow** for autonomous operation.

EasyDesk - Computer Vision Accessibility System **Presented at LauzHack, EPFL(Switzerland)**

- Built a system allowing elderly or motor-impaired users to control a computer using gestures and voice.
- Implemented **real-time gesture recognition using MediaPipe + OpenCV** and **voice detection** with a **Python backend** with **WebSockets** to connect computer vision, voice input and a simplified UI.

TECHNICAL SKILLS

Languages | Python, Java, C, Assembly (ARM)

Data & Visualization | SQL, Pandas, NumPy, Matplotlib

System and Tools | Git, Linux, PLCs (Siemens, Omron, Schneider), WebSockets

LANGUAGES

Spanish (Native), Catalan (Native), French (Native), English (C1)