

SKILLS SUMMARY

- **Core Skills:** Linux, Embedded Systems, Control Engineering, Test Automation, Security & Compliance
- **Programming:** C/C++, Python (advanced), Bash, NodeJs, Java
- **Technologies:** PX4 Autopilot, ROS2, Gazebo, Docker, Podman, Git, Ansible, Virtualization
- **AI & Robotics:** Deep Reinforcement Learning, Computer Vision (OpenCV), UAV Dynamics Modeling
- **Other:** LLMs (RAG, MCP), Test Orchestration, Automation Pipelines

EXPERIENCE

- **Oracle** Casablanca, Morocco
System Engineer (Linux QA) Aug 2024 – Present
 - Reduced destructive test time from **3 days to 7 hours**, with launch setup cut from hours to minutes, by automating OLAM deployments and test pipelines.
 - Optimized resource usage by replacing week-long persistent clusters with on-demand automation.
 - Refactored QA test suites (shunit2, modularization, clearer logs) for maintainability and faster triage.
 - Embedded AI into QA workflows by designing preprocessing pipelines and developing **RAG/MCP-based prompts in Oracle Explain** to triage logs, classify failures, and correlate issues with code changes and bug reports.
- **Oracle** Casablanca, Morocco
System Engineer Intern (Linux QA) Feb 2024 – Aug 2024
 - Applied **OpenSCAP compliance scanning across Oracle Linux and UEK systems**, improving baseline security validation across the OS stack.
 - Automated CVE detection workflows, catching vulnerabilities earlier in the QA cycle.
 - Built early log-analysis scripts that reduced debugging time for QA engineers.
- **Intelcia IT Solutions** Casablanca, Morocco
Internship (SD-WAN POC) 2023
 - Deployed and managed SD-WAN network using Fortinet, enhancing network resilience and security.

EDUCATION & RESEARCH

- **Euro-Mediterranean University of Fez, EIDIA** Fez, Morocco
Diploma in Software & Security Engineering 17/20 (GPA: 3.7/4.0 equivalent) 2021 – 2024
- **PhD in Control Engineering (in progress):** AI-based UAV control using nonlinear backstepping, Lyapunov stability, and dynamic reference generation (PX4, ROS2, Gazebo, C++, Eigen).

SELECTED TECHNICAL PROJECTS

- **Autonomous UAV Controller:** Designed and implemented a nonlinear backstepping controller on SE(3) for UAV thrust/torque control. Validated performance using PX4 SITL and ROS2.
- **Oracle Explain AI Log Triage:** Built a full pipeline integrating log preprocessing, chunking, and LLM-based classification (RAG/MCP) for automated issue triage and bug correlation in Oracle Linux QA.
- **Autonomous Car with Raspberry Pi:** Developed a computer vision-based navigation system using OpenCV and deep learning for competition.

ACHIEVEMENTS & CERTIFICATIONS

- Paper in preparation: “Geometric Backstepping Control of quadrotos” (target: IFAC 2025)
- Founder & President, DigiClub (2020–2024): Launched university’s first robotics club; led 100+ members.
- Oracle: Oracle Cloud Infrastructure Associate & Oracle Linux 8: System Administration