

Alfred Lalanne

Embedded Systems Developer

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My LinkedIn
My GitHub

moi.jpeg

Education

- 2019–2023 **Electronics Engineering Degree, ENSEA, Cergy (95)**
Comprehensive education covering analog and digital electronics, signal processing, embedded systems design, communication systems and project management
- 2017–2019 **Preparatory Classes for Engineering School, Brizeux, Quimper (29)**
Intensive programs preparing students for engineering schools. Covering advanced mathematics, physics, chemistry, and engineering sciences, emphasizing analytical and critical thinking skills for entrance exams to engineering schools
- 2016–2017 **Scientific Military Preparatory Class, French Navy, Brest (29)**
Bridge Program: Facilitated transition from high school to advanced academic levels, supported by a military environment, fostering organization and readiness for post-secondary education
- 2014–2016 **Scientific High School Diploma, Paul-Bert, Paris (75)**
Competence in mathematics, physics, chemistry, biology, and humanities

Experience

- 2020–2023 **Engineering Apprenticeship, IDEMIA, Osny (95)**
Python thermal image processing development (4 months)
Contribution to the ALIX project, a system aimed at identifying owners of lost luggage in airports
- Modified specifications for the industrial pilot phase
 - Conducted research and testing on the luggage detection component
 - Investigated, adapted, and tested the hardware LED driver
 - Formulated and verified the electrical wiring diagram
 - Optimized the signal-to-noise ratio of the cameras using OpenCV for C++
 - Designed an industrial bench for camera calibration, optimized for mass production
 - Designed mechanical structure with practical knowledge of optics theory
 - Developed focus tuning and white balance calibration algorithms in C++
- 2024– **Electrical Testing engineer, ICE TECH SAS, Buchelay (78)**
Responsible for the electrical testing of smart cards
- Development of a software to analyze the quality of the smart cards production from scratch
 - Analysis of the information contained in the logfiles from the electrical tester
 - Development of the core parsing and data representation algorithms
 - Refactoring for object-oriented design
 - Incorporating this library into a user-friendly GUI
 - Created documentation to facilitate operator use of the electrical tester
 - Providing on-the-spot support to operators in troubleshooting errors during smart card production
 - Troubleshooting and Resolution of Electrical Tester Malfunctions
 - Investigating root causes of electrical tester malfunctions
 - Formulating and testing hypotheses to resolve issues
 - Documenting troubleshooting efforts and successful solutions in a detailed report
 - Implementing preventative measures to avoid future occurrences of similar issues

Skills

Programming C++ ★★★★★, C ★★★★★, Python ★★★☆, Matlab ★★★☆, Java ★☆☆, Javascript ★☆☆
Libraries OpenCV ★★★★★, PyQt5 ★★★★★, NumPy ★★★☆, SFML ★★★☆, Matplotlib ★★★☆, RealSense ★☆☆

Languages

French Native language
English Full Professional Proficiency 915/990 TOEIC exam