Alfred Lalanne

Embedded Systems Developer

Paris, France
+33 (6) 88 33 06 05
alfred.lalanne@gmail.com
My LinkedIn
My GitHub

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 Apprentice**, *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–now **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*