

Alfred Lalanne

Embedded Systems Developer

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My LinkedIn
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Domaines de compétence

Electronique

Transistors : polarisation, technologie, logique
Schémas électriques, routage
Filtrage analogique actif et passif, Matlab

Electronique Numérique

Microcontrôleurs : programmation en C et Assembleur sur Keil-uVision
Logique programmable : FPGA (technologie et description VHDL), flot de conception
Systèmes sur puce : SoC, SoC-FPGA

Informatique

C,C++,Python,Java, Assembleur, noyau temps réel

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– **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