France

Brazil

Brazil

# Álan Crístoffer e Sousa



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## Languages

Portuguese (native) English (C1/C2) German (B2/C1) French (B2/C1)

#### **Skills**

Industrial Automation,
Robotics, System Analysis
and Control, Programming,
Linux/Unix System
Management, System Design
and Implementation,
Problem-solving, Technical
Communication, Teamwork,
Leadership

#### **Interests**

I'm always thinkering with my computer's settings and programming applications to solve problems I found, to ease some tasks or simply for the joy of learning a new programming language. I like to keep up-to-date on technological trends by reading articles and watching videos on varied subjects. I'm proud of speaking four languages and looking forward to make the list longer. I enjoy mentoring, specially teenagers, with the goal of teaching them valuable skills or helping them overcome difficulties.

# **Summary**

**Ph.D. Candidate** in Industrial Automation and **Master's** in Electrical Engineering, I have conducted advanced research and worked as a **Mechatronic Engineer**, highlighting my abilities to think critically, solve problems, apply advanced techniques, and implement solutions. I like cooperative environments, where a team of skilled individuals work together towards a common goal.

## **Experience**

2021- Université de Reims Champagne-Ardene

Research Associate and Professor Assistant

I applied strong analytical skills to design and implement solutions to complex proglems. I also effectively communicated complex technical concepts, mentored students, and collaborated with faculty, demonstrating my ability to translate advanced knowledge into practical applications and my proficiency in automation principles, research methodologies, and at bridging academic knowledge with industry demands.

2018–2019 **4TECH** 

Founder Member

I collaborated with a team of skilled mechatronic engineers to devise tailored solutions addressing local business requirements.

2017-2017 **DETEC** Brazil

Founder Member

I led the development of embedded software for an ammonia detector critical to ensuring workplace safety within the food and cold-transportation industry.

2016–2016 Acal BFi Germany

Intern

I engineered a platform for measuring power loss within PFC circuit inductors' kernels, applying knowledge in circuit development and electronic component assembly, showing problem-solving and technical communication abilities.

2010-2013 Corpo de Bombeiros Militar de Minas Gerais

Soldier

As a military firefighter and first-aider I developed the ability to handle high-stress situations, remain calm under pressure, and make quick decisions in emergencies. I also proven my ability to follow protocols, and adjust strategies based on evolving situations and an aptitude for analyzing complex situations, identifying issues, and implementing effective solutions quickly and efficiently.

## **Education**

2021 **Ph.D. in Industrial Automation** Université de Reims Champagne-Ardene, France

I gained expertise in conducting advanced research, implementing complex algorithms, and employing real-time data processing techniques. My proficiency extends to programming languages such as Python, MATLAB, and Rust, alongside a comprehensive understanding of system design and implementation. I also enhanced my soft skills, including, but not limited to, critical thinking, problem-solving in intricate technical scenarios and effective communication of complex concepts.

2020-2020 Master in Electrical Engineering

CEFET-MG/UFSJ, Brazil

I analyzed the problem of maintaining stability in evolving switched systems. I pioneered a Region of Attraction-based technique, significantly enhancing convergence rates. This innovative approach showcased my ability to identify complex system issues and devise solutions aimed at optimizing system stability and performance.

2013–2019 **Mechatronic Engineering** CEFET-MG, Brazil

I actively supported peers and researchers in their projects, particularly aiding in programming and hardware-related issues. This experience fortified my technical proficiency in programming and problem-solving while honing my ability to communicate complex concepts effectively. Participating in robotic competitions and taking part on laboratories activities also strengthened those skills and made me able to work with teams of varied backgrounds and expertise levels.