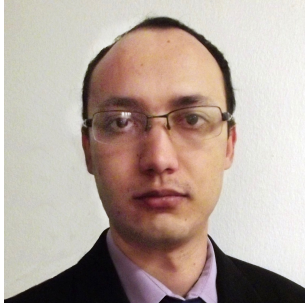


Álan Crístopher e Sousa



Personal Data

28 years old, Brazilian

Contact

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Languages

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

Skills

System Analysis and Control,
C/C++, Python, Kotlin,
Assembly, MATLAB, Android
Development, Frontend,
Backend, Embedded,
Automation, Robotics

Summary

Mechatronic engineer studenting with experience in **system analysis and control** and **programming**. Loves to work in a cooperative environment towards solving complex problems. Has worked in two scientific initiations toward using an **advanced control technique** (Model Predictive Control). Loves to learn languages and to help others develop their projects.

Experience

- 2016–2016 **Acal BFi** Dietzenbach, Hessen, Germany
Intern
During this internship, I developed a platform to measure the power loss inside the kernel of the inductor used in a PFC circuit.
- 2010–2014 **Corpo de Bombeiros Militar de Minas Gerais** Divinópolis, Minas Gerais, Brazil
Fireman
As a firefighter I was entitled to work as a first-aider and diver, being the first response in all sorts of accidents, from fire in the wilds to car accidents and industrial and natural disasters.

Education

- 2013–Today **Mechatronic Engineering** Centro Federal de Educação Tecnológica de Minas Gerais
Since my first semester, I helped other students from graduation, master and Ph.D. with their projects, especially with programming. In my last year, I became the student representative in the Graduation Council
- 2015–2016 **Student Exchange** Frankfurt University of Applied Sciences, Germany
I studied as an exchange student through the Brazilian government's program Ciências Sem Fronteiras (Science Without Borders).
- 2015–2015 **Student Exchange** Université Grenoble Alpes, France
I studied as an exchange student through the partnership between UGA and CEFET-MG. There I worked in the robotics laboratory helping the team who won the second place in the National Instruments MyRIO Paris competition.

Extracurricular

- 2017 & 2018 **Python mini-course** Ministered
I ministered a Python mini-course at my university. The textbook (in Portuguese) is freely available at <https://acristoffers.me/assets/Python3.pdf>
- 2017 **Semana C&T - Week of Science and Technology** 1st Place
My project got the first place in the 13rd workshop at my university.
- 2015 **National Instruments MyRIO Competition, Paris** 2nd Place
I helped the team that got the second place in the competition. I was responsible for the code interfacing with the camera and recognizing colors.
- 2014 **Latin American Robotics Competition** 3rd Place
I was part of the team that got the third place in the competition. I was responsible for the circuitry and programming of one of the robots.

Interests

System Analysis and Control Theory I worked with standard PID with transfer function models and state-space models using static feedback and model predictive control. I also had a quick look at LMI (linear matrix inequalities) programming.

Programming C/C++, Python, Kotlin, Rust, Ruby, MATLAB...Languages are just tools in the belt. I can program using structured, object oriented and functional paradigms. I always try to use design patterns to make the code more organized and maintainable.