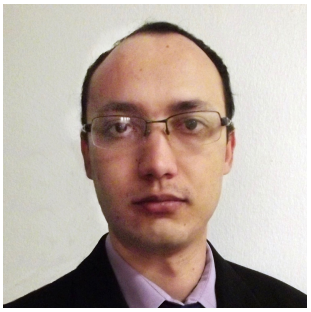

Personal Data
29 years old, Brazilian

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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 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 building a platform that interfaces with hardware for system analysis and control objectives.

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

2020– **Master in Control Engineering** CEFET-MG/UFSJ
Currently working on my master's degree under the supervision of Prof. Dr. Valter Leite, reseaching the Command Governor technique and its use in switched, fault-tolerant systems.

2013–2019 **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 which won the second place in the National Instruments MyRIO Paris competition.

Publications

2019 **FILHO, MARCIO R. O.; E SOUSA, ÁLAN C.; COSTA, EMERSON S.; LEITE, VALTER J. DE S. (2019). XL IBERO-LATIN AMERICAN CONGRESS ON COMPUTATIONAL METHODS IN ENGINEERING: Prototype Modelling for Real Systems.**

2018 **E SOUSA, ÁLAN C.; LEITE, VALTER J. S. ; RUBIO SCOLA, IGNACIO. Affordable Control Platform with MPC Application. Studies in Informatics and Control, v. 27, p. 265-274, 2018.**

2017 **LOPES, A. N. D.; LEITE, V. J. S.; SILVA, L. F. P.; e Sousa, Álan. ESTABILIZAÇÃO LOCAL DE SISTEMAS NÃO-LINEARES VIA MODELAGEM FUZZY TAKAGI-SUGENO DISCRETA NO TEMPO. In: Simpósio Brasileiro de Automação Inteligente (SBAI), 2017, Porto Alegre - RS. XIII Simpósio Brasileiro de Automação Inteligente, 2017.**

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 Compatition, 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.