



MÔNICA EMEDIATO MENDES DE OLIVEIRA



github.com/emediato
[my teenager github](#)

PROFILE

My technical course was joined with my high school, so I learned programming very young. One of my motivation is knowing that every problem has a solution, and I like complex and important problems for society. I am persistent, communicative and I am always learning new things in my personal and professional life. I am proactive, I am not afraid to ask in case of doubts and I like the balance between the learning process and what I understand about it. I would like a technical position.

EXPERIENCE

RESEARCH INTERNSHIP – Full time

[NHL Stenden University](#) | Leeuwarden, Friesland, Netherlands | 2021 – 2022

Working closely with the specialists of Electrohydrodynamic Atomization. Laboratory work and Python development. Spark detection and prevention device for Electrohydrodynamic Atomization Application. I work in the High Voltage laboratory in the Water Technology Center. Linux prompt in order to control peripheral. My bachelor's final thesis will be about this research project. I am currently writing an article about it and I started to deal with PyTorch.

SYSTEM ANALYST – Full time

[VMI Security](#) | Lagoa Santa, Minas Gerais, Brazil | 2020 – 2021

C++ (embedded), QML and Python programming in Qt Creator for an XRay company. Coding for Computer Vision improvements. Solving problems daily. Embedded programming. Dealing with different protocols, parallels and asynchronous programming (MQTT, UART, SPI, etc). Git, agile and team collaboration. Docker and Software and Architecture Development. I left this job just because I liked more the job opportunity in Leeuwarden (my first international opportunity).

PHYSICS TEACHER – Volunteer

[Rede Emancipa](#) | Belo Horizonte, Minas Gerais, Brazil | 2020 – 2021

Federal universities in Brazil are very good and free. Because of this, they are highly competitive and there are preparatory courses for the entrance exam. It is usually expensive and those who don't have money can't afford it and that's why I decided to start teaching online on weekends throughout the pandemic period.

INFORMATION TECHNOLOGY ANALYST – Full Time

[Fundação CEFETMINAS](#) | Belo Horizonte, Minas Gerais, Brazil | 2019 – 2021

Full Stack development: Python and Python Flask, Javascript, HTML and Postgres database in an agile environment. Website creations. Maintenance of websites and physical servers. User support, deal with different kind of people. SQL Server for creating and modeling relational databases. SeekTable for data cleaning, modeling and displaying. I left this job because I wanted to focus on my bachelor.

SCIENTIFIC RESEARCH INTERNSHIP – Part time

[TESLA Power Engineering Laboratory \(UFMG\)](#) | Belo Horizonte, Minas Gerais, Brazil | 2018 – 2020

Project named SmartBattery in partnership with Petrobras (it is a state-owned Brazilian multinational corporation in the petroleum industry headquartered in Rio de Janeiro). Research and development based on realizing the internal network and data control of photovoltaic panels at Escola de Engenharia in Federal University of Minas Gerais (UFMG) with Raspberry Pi 3. I created a welded junction box. Technologies: ESP32, ESPEasy, KiCAD, Nextcloud (create our own cloud), Emoncms (allows data to be sent via JSON/HTTP/MQTT) and NODE-RED (interconnection in a physical way between inverters and Raspberry for I/O, cloud-based systems and database). I created a welded PCB junction box. Scientific research in Brazil has not received a financial adjustment for over 10 years, the scholarship does not even pay for monthly bus fare. I left due to an offer that I would earn 10 times more, but I'm still talking to my advisor about writing an article about this research and a future refactoring of the PCB board I did. Advisor: Thales Carvalho Maia.

CONTACT

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EDUCATION

BACHELOR'S DEGREE

Control and Automation Engineering

Universidade Federal de Minas Gerais
([UFMG](#)) - Belo Horizonte (capital of the
state Minas Gerais, Brazil)
2017-Present

UFMG is one of Brazil's best universities and has been frequently rated among the ten best universities in Latin America. The engineering course is very complete, we have many laboratories and it lasts at least 5 years.

TECHNICAL HIGH SCHOOL

Computer Network

Centro Federal de Educação Tecnológica
de Minas Gerais ([CEFET-MG](#)) – Belo
Horizonte, Minas Gerais, Brazil
2013-2017
Average Coefficient: 83.7

My first programming language was C++ when I was 15 with a very methodical Electrical Engineering professor and I remember the first test until today. The course ended in 2015, but I did two internships to complete it and wrote a thesis on: Confidentiality and Intrusion Detection Systems Analysis that are Open Source.

The Federal Centers for Technological Education (Portuguese: Centros Federais de Educação Tecnológica, shortened CEFET) are Brazilian educational institutes which are directly linked to the Ministry of Education. They are focused on high school, technical high school and academic degrees linked to technology. Many of them offer academic degrees, just like universities. After December 28, 2008, most of them were transformed into Federal Institutes of Education, Science and Technology, the exceptions being the ones in the states of Minas Gerais and Rio de Janeiro, which remained as CEFETs.

TECHNICAL SKILLS

C++	●●●●○○
Python	●●●●○○
MATLAB	●●●●○○
UNIX	●●●●○○
KiCAD	●●●●○○
Raspberry Pi	●●●○○○
ESP32	●●●●○○
C	●●●○○○
Altium	●●●○○○
FreeCAD	●●●○○○
Javascript	●●●○○○
MySQL	●●●○○○
PostgreSQL	●○○○○○

SKILLS

Parallel programming
System programming
Design thinking
Computer Networks
Computer Vision
Time management
Flexibility
Professional athlete in athletics (3000 meters)

INTERESTS

Technology
Sports
Reading books
Theatre
Circus
Traveling
Calm songs

LANGUAGES

Portuguese	●●●●●●
English	●●●●●○
Spanish	●●●●●○
German	●●○○○○
Dutch	●○○○○○

SCIENTIFIC RESEARCH INTERNSHIP – Part time

[Engenharia Civil UFMG](#) | Belo Horizonte, Minas Gerais, Brazil | 2018

Working on a master's degree project with MATLAB in Civil Engineering. Development of a Computer Vision product. Code to identify and classify railway sleepers. We used tools in MATLAB to filter and treat GoPro videos. Advisors: Laís Faria, Tadeu Ramos Nunes. The project fortunately ended after I joined and she defended her thesis.

MARKETING – Volunteer

[UFMG](#) | Belo Horizonte, Minas Gerais, Brazil | 2018

I did volunteer work as digital marketing professional to the Student Course Committee. I created digital arts. As a member, I also have taken responsibilities of going through the regulations and laws presented by the Executive Board in order to see if certain criteria were met that go in accordance to the benefit of the students.

TECHNICAL INTERNSHIP – Part time

[Codificar](#) | Belo Horizonte, Minas Gerais, Brazil | 2017

Contributing to the development of the sales in a technology company. I specified, priced, and made application proposals for clients. I also met with clients to discuss and ask about proposals and activities that the company would develop later. I helped clients in the global market to find the best solution for their development proposals. I was fired because they said the company was in financial trouble.

TECHNICAL INTERNSHIP – Part time

[Associação de Servidores do CEFET-MG](#) | Belo Horizonte, Minas Gerais, Brazil | 2016

MySQL, PHP and Java programming for a healthcare company. Development and solutions of general problems in I.T., database, printer maintenance, managed contracts with other companies. I left because I needed to focus on the University entrance exam.

ACADEMIC EVENT ORGANIZER – Volunteer

[MOCS - Modelo de Comitês e Simulados do CEFET-MG](#) | Belo Horizonte, Minas Gerais, Brazil | 2014 - 2016

I organized Model United Nations, also known as Model UN or MUN in Centro Federal de Educação Tecnológica (CEFET-MG). It is an academic activity in which students can learn about diplomacy and international business. MUN involves and teaches participants speaking, debating, and writing skills, in addition to critical thinking, teamwork, and leadership abilities.

ACTIVITIES

- I presented my first poster at the Wetsus Congress, 2021.
- DevOps Culture and Mindset Course, 2020, on Coursera.
- Sensors and Sensor Circuit Design, 2020, on Coursera.
- I made a project to have my own cloud with Raspberry.
- I participated in the Dronecoria Open Source project for fun, it develops Open Source biotechnological tools and knowledge enabling large-scale, low-cost environmental restorations through sowing drones and seed enhancement.
- I have performed theater and circus since I was a child in Brazil.