# Alaf do Nascimento Santos

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## EDUCATION

**2022 – 2024 - Master of Science in Engineering (Diplôme d'ingénieur).**
Télécom Paris, Institut Polytechnique de Paris, Palaiseau, France. *Double degree program.*

- M1: Embedded systems, mobile networks, and Internet of things.
- M2: Embedded Systems and Information Processing

**2017 – 2022 - Bachelor of Science in Electrical Engineering.**
Federal University of Espírito Santo, Vitória, Brazil.

- Control and automation systems, telecommunications, and computer science.
- Final Project: Multiplatform System For Data Reception Via Visible Light Communication Technology.

## PROFESSIONAL EXPERIENCE

**2023 - Network and Automation Intern.**
SOLEIL Synchrotron, Saint-Aubin, France.

- Software tool parameterisation dedicated to centralised supervision of industrial PLCs.
    - Real-time monitoring tool: Zabbix;
    - Programming languages: Python, and C++.

**2021 – 2022 - Embedded Systems and IoT Intern.**
2Solve Engenharia e Tecnologia, Vitória, Brazil.

- Development of software for embedded systems and IoT Web Applications. Preparation of technical documentation.
    - Embedded systems based on Raspberry Pi and SAMD21;
    - Programming languages: Javascript, Python and C++;
    - Web dev tools: AngularJS, InfluxDB, and MongoDB;
    - IoT tools: Node-RED and Grafana.

**2019 – 2021 - Scholarship Holder in Scientific and Technological Research Program.**
UFES Telecommunications Laboratory, Vitória, Brazil.

- Software and hardware development for visible light communication systems.
    - Dev tools: MatLab and Android Studio;
    - Programming languages: Java, Python, and C++.

**2019 – 2020 - Automation Intern.**
Cassiano Antonio Moraes University Hospital, Vitória, Brazil.

- Development of electronics for the hospital maintenance supervisory system. Preparation of technical documentation. Development of a data monitoring application.
    - Embedded systems based on Raspberry Pi, Arduino, and ESP8266;
    - Real-time monitoring tool: Zabbix;
    - Programming languages: Python, Javascript, and C++.

**2019 - Scholarship Holder in Educational Program.**
Tutorial Teaching Program, Vitória, Brazil.

- Software training, such as MatLab and LaTex. Research about embedded systems. Production of scientific articles.
    - Embedded systems based on Raspberry Pi and Arduino;
    - Dev tools: MatLab;
    - Programming languages: Python and C++.

## VOLUNTEERING

**2018 – 2019 - Activity Manager.**
Academic Center of UFES Electrical Engineering, Vitória, Brazil.

- Organization of welcome events for new students, organization of lectures on subjects of interest to graduation, promotion of sports events, electrical engineering custom t-shirts selling, maintenance of the study room.

**2018 - Museum Mediator.**
UFES Museum of Life Sciences, Vitória, Brazil.
- Introduce the museum to visitors, control the flow of people, and pass safety guidelines.

## DIGITAL SKILLS

LaTeX | Python | C/C++ | Microsoft Office Pack | Azure DevOps | MATLAB and Simulink | Raspberry Pi | Microcontrollers (Arduino, BeagleBone, ESP8266) | Javascript | Java | Node.js Vue and Angular | MongoDB | InfluxDB | Rust | SystemVerilog and VHDL | Git | Linux.

## LANGUAGE SKILLS

- Portuguese - Native Language.
- English - Cambridge Linguaskill C1+ (178/180), 2022.
- French - Test de Connaissance du Français B2 (488/699), 2021.

## HONOURS AND AWARDS

**2016 - Honorable Mention Brazilian Public School Mathematics Olympiad.**
Institute of Pure and Applied Mathematics (IMPA), Rio de Janeiro, Brazil.
- Stood out in mathematics at this Olympiad, being the only high school student out of around 500 in the school to receive this award.

**2016 - 1st place at the São João Batista School Science Fair.**
EEEFM São João Batista, Cariacica, Brazil.
- Developed a Tesla coil capable of creating electric arcs of a few centimeters.

**2015 - 2nd place at the São João Batista School Science Fair.**
EEEFM São João Batista, Cariacica, Brazil.
- Developed a physics project involving basic concepts of electromagnetism to turn on fluorescent lamps wirelessly at close range.

## PUBLICATIONS AND APPEARANCES

- **Performance Evaluation of an OOK-Based Visible Light Communication System for Transmission of Patient Monitoring Data.**
  Conference: IFMBE Proceedings. 2021.

- **Application of Visible Light Communication Technology for Monitoring in Hospitals.**
  Conference: Brazilian Congress on Biomedical Engineering. 2020.

- **History of PET Electrical Engineering UFES.**
  Conference: Brazilian Congress of Engineering Education. 2020.

- **Low Cost Module for Supervisory System of Hospital Substations.**
  Conference: Congresso Internacional Online das Engenharias. 2020.

## FOR MORE INFORMATION

- Linkedin: https://www.linkedin.com/in/alafsantos
- Github: https://github.com/alafSantos
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