

# Alaf do Nascimento Santos

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## EDUCATION

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### **2022 – 2024 - Master of Science in Engineering.**

Télécom Paris, Paris, France.

- Embedded systems, mobile networks and internet of things.

### **2017 – 2022 - Bachelor of Electrical Engineering.**

Federal University of Espírito Santo, Vitória, Brazil.

- Control and automation systems, telecommunications and computer science.

## PROFESSIONAL EXPERIENCE

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### **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

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### **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 of the flow of people and passing safety guidelines.

## DIGITAL SKILLS

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LaTeX-BibTeX / Arduino robotics - basic / ESP8266 / Python 3 / C and C++ Programming / Microsoft Office Pack ( Word, Excel, PowerPoint, Outlook) / Azure DevOps / MATLAB and Simulink / Raspberry Pi / Microcontrollers (Arduino, BeagleBone) / Javascript / Java programming language / Node.js Vue and Angular / MongoDB Query Language / InfluxDB.

## LANGUAGE SKILLS

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- Portuguese – Native Language.
- English – TOEFL ITP B1
  - Listening: B1; Reading: B1; Spoken production: B1; Writing: B1.
- French – TCF B2
  - Listening: C1; Reading: B2; Spoken production: B1; Writing: B2.

## HONOURS AND AWARDS

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### **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

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- **Performance Evaluation of an OOK-Based Visible Light Communication System for Transmission of Patient Monitoring Data.** Conference: IFMBE Proceedings. 2021.
- **Aplicação da Tecnologia de Comunicação via Luz Visível para Monitorização em Hospitais.** Conference: Brazilian Congress on Biomedical Engineering. 2020.
- **História do PET Engenharia Elétrica UFES.** Conference: Brazilian Congress of Engineering Education. 2020.
- **Módulo de Baixo Custo Para Sistema Supervisório de Subestações Hospitalares.** Conference: Congresso Internacional Online das Engenharias. 2020.

## FOR MORE INFORMATION

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- LinkedIn: <https://www.linkedin.com/in/alafsantos>
- Github: <https://github.com/alafSantos>
- Lattes: <http://lattes.cnpq.br/4461462146153067>
- ORCID: <https://orcid.org/0000-0002-5469-3872>