# Alexandre Mascarenhas

#### Personal Data

COUNTRY AND DATE OF BIRTH: Brazil - 20 June 1996

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## **EDUCATION**

SINCE APR 2022 Masters in Computer Science

University of Tsukuba, Tsukuba, Japan

Expected graduation in Mar 2024

Aug 2018 - Jun 2022 Bachelor's Degree in Electrical Engineering

Cruzeiro do sul University, Sao Paulo, Brazil

Mar 2015 - Dez 2021 Bachelor's Degree in Physics

University of Sao Paulo, Sao Paulo, Brazil

Jun 2013 - Jun 2015 Electronic Technician

SENAI "Roberto Simonsen", Sao Paulo, Brazil

Jun 2011 - Jun 2013 Maintenance Electrician

SENAI "Roberto Simonsen", Sao Paulo, Brazil

#### WORK EXPERIENCE

Current	Electronics Technician at SAO PAULO METRO, Brazil
Ост 2017	Urban railways that operate in the city of Sao Paylo

Development of asset monitoring systems, Hardware/Software for embedded systems(Microcontrollers and Linux Processors), with sending to a database for further analysis and predictive maintenance

Jun 2015 - Jun 2017

Collector at SPTuris (Sao Paulo Tourism), Brazil

The official tourism and events company in the city of Sao Paulo

Controlled the entry of cars in the parking lot of Anhembi Park

Jul 2013 - Feb 2014

Front-End Developer at Meu Web Gestor, Brazil

Services provision in Business Management

Website and Software Development for business management

Jun 2011 - Jun 2013

Maintenance Electrician at Telesp Inc, Brazil

Telephony operator of the Telebras system in the Brazilian state of Sao

Paulo

Performed preventive and corrective maintenance on building electrical systems

## ACADEMIC EXPERIENCE

Jul 2018 - Feb 2019

Noise measurements in new advanced materials at Institute of Physics of the University of Sao Paulo, Brazil

PUB Schoolarship student by University of Sao Paulo

Advisor: Alexandre Levine

In this project we propose the development of a system for studying quantum noise at low temperatures. The measurement of noise allows unraveling the nature of the conduction states, from the material's internal dynamics, through the statistical correlation between scattering events. We propose to create a setup for noise measurements in our laboratory

Situation: Disabled

Aug 2017 - Nov 2017

Pro-Student Monitor at Institute of International Relations of the University of Sao Paulo, Brazil

RUSP Schoolarship student by University of Sao Paulo

Managed the use of computers and assisted students in the use of software and resources related to basic computational tasks

Sep 2016 - Mar 2017

Support the prototyping for graduate students in electronics workshop of INOVALAB@POLI at POLYTECHNICAL SCHOOL OF THE UNIVERSITY OF SAO PAULO, Brazil

PUB Schoolarship student by University of Sao Paulo

Advisor: Roseli de Deus Lopes

Assisted undergraduate and graduate students in the use of machines, equipment and tools in the Prototyping Laboratory (CITI), mainly in tasks related to electronics and programming.

Aug 2015 - Jul 2016

Demonstration Laboratory at Institute of Physics of the University of Sao Paulo, Brazil

PUB Schoolarship student by University of Sao Paulo

Advisor: Mikiya Muramatsu

Maintained the experiments of the Demonstration Laboratory of the Physics Institute of the University of Sao Paulo and proposed and set up new experiments.

Jun 2015 - Jun 2016 |

New modules for Toroidal Nuclear Reactor System Trigger Control (TCABR) at Institute of Physics of the University of Sao Paulo, Brazil

Technological Initiation by University of Sao Paulo

Advisor: Ricardo Magnus Osorio Galvão

Modernization of the Toroidal Magnetic Field Trigger of the Nuclear Fusion Reactor TCABR of the University of Sao Paulo. The project aimed at replacing the old magnetic field trigger board of the reactor that used analog electronics systems, with a microcontroled system with remote access via internet, using both Arduino and its modules. The project included everything from the elaboration of the circuits, through the programming of the software and the prototype of the electronic board, following the test of the system (not finished).

Jun 2011 - Jun 2016

WorldSkills Training at SENAI "ROBERTO SIMONSEN", Brazil

Spent 5 years training for the Knowledge Olympics (WorldSkills, an international competition of technical level) in the Industrial Electronics modality, where he practiced the following skills:

- HARDWARE Development of hardware to solve problem situations. Elaboration of the circuit, which could be Analog, Digital or Microprocessed, simulation in software (usually PROTEUS), design and manufacture of the electronic boards responsible for carrying out the task.
- MEASURES AND REPAIRS Detection of defects, consequently, repair of available hardware and subsequently performed measurements according to hardware manuals and documents.
- ASSEMBLY Mechanical and electronic assembly of devices made available with manuals and documents.

## LANGUAGES

PORTUGUESE: Mothertongue

English: Very good Writing and Reading, good Speaking and Listening

SPANISH: Fair Writing, Reading, Speaking and Listening

Japanese: Fair Listening

## Computer Skills

Advanced Knowledge: C/C++, Assembly, Python and Javascript.

Intermediate Knowledge: VBA, Excel, Word, PowerPoint, Linux and Windows and Hard-

ware maintenance.

Basic Knowledge: PHP, mysql, html, Access

## Honor and Awards

• Bronze Medalist at the Brazilian Public Schools Mathematics Olympiad (OBMEP)

# Interests and Activities

Soccer, Travelling, Playing Electric Guitar, Skating Reading Manga Watching Science Fiction Movies and Japanese Cartoons Technology, Open-Source, Programming