

# Alexandre MASCARENHAS

## PERSONAL DATA

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| COUNTRY AND DATE OF BIRTH: | Brazil - 20 June 1996                              |
| ADDRESS:                   | Inchinoya Syukusya 14-402, Tsukuba, Ibaraki, Japan |
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## EDUCATION

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| SINCE APR 2022      | Master's Degree in COMPUTER SCIENCE<br><b>University of Tsukuba</b> , Tsukuba, Japan<br>Graduate School of Systems and Information Engineering<br>Department of Computer Science<br>Expected graduation in Mar 2024 |
| AUG 2018 - JUN 2022 | Bachelor's Degree in ELECTRICAL ENGINEERING<br><b>Cruzeiro do sul University</b> , Sao Paulo, Brazil  |
| MAR 2015 - DEZ 2021 | Bachelor's Degree in PHYSICS<br><b>University of Sao Paulo</b> , Sao Paulo, Brazil<br>Institute of Physics of The University of Sao Paulo   |
| JUN 2013 - JUN 2015 | ELECTRONIC TECHNICIAN<br><b>SENAI "Roberto Simonsen"</b> , Sao Paulo, Brazil  |
| JUN 2011 - JUN 2013 | MAINTENANCE ELECTRICIAN<br><b>SENAI "Roberto Simonsen"</b> , Sao Paulo, Brazil  |

## WORK EXPERIENCE

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| <i>Current</i><br>OCT 2017 | Electronics Technician at SAO PAULO METRO, Brazil<br><i>Urban railways that operate in the city of Sao Paulo</i><br>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 |
| <i>Current</i><br>OCT 2022 | Research Assistant at UNIVERSITY OF TSUKUBA, Japan<br><i>Department of Computer Science</i><br>Working with machine learning and neural networks in order to determine the quality of agricultural products  |
| JUL 2013 - FEB 2014        | Front-End Developer at MEU WEB GESTOR, Brazil<br><i>Services provision in Business Management</i><br>Website and Software Development for business management  |
| JUN 2011 - JUN 2013        | Maintenance Electrician at TELESP INC, Brazil<br><i>Telephony operator of the Telebras system in the Brazilian state of Sao Paulo</i><br>Performed preventive and corrective maintenance on building electrical systems  |

## ACADEMIC EXPERIENCE

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| JUL 2018 - FEB 2019 | <p>Noise measurements in new advanced materials at INSTITUTE OF PHYSICS OF THE UNIVERSITY OF SAO PAULO, Brazil<br/><i>PUB Scholarship student by University of Sao Paulo</i><br/><i>Advisor: Alexandre Levine</i></p> <p>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</p> <p>Situation: Disabled</p>   |
| AUG 2017 - NOV 2017 | <p>Pro-Student Monitor at INSTITUTE OF INTERNATIONAL RELATIONS OF THE UNIVERSITY OF SAO PAULO, Brazil<br/><i>RUSP Scholarship student by University of Sao Paulo</i></p> <p>Managed the use of computers and assisted students in the use of software and resources related to basic computational tasks</p>   |
| SEP 2016 - MAR 2017 | <p>Support the prototyping for graduate students in electronics workshop of INOVALAB@POLI at POLYTECHNICAL SCHOOL OF THE UNIVERSITY OF SAO PAULO, Brazil<br/><i>PUB Scholarship student by University of Sao Paulo</i><br/><i>Advisor: Roseli de Deus Lopes</i></p> <p>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.</p>  |
| AUG 2015 - JUL 2016 | <p>Demonstration Laboratory at INSTITUTE OF PHYSICS OF THE UNIVERSITY OF SAO PAULO, Brazil<br/><i>PUB Scholarship student by University of Sao Paulo</i><br/><i>Advisor: Mikiya Muramatsu</i></p> <p>Maintained the experiments of the Demonstration Laboratory of the Physics Institute of the University of Sao Paulo and proposed and set up new experiments.</p>   |
| JUN 2015 - JUN 2016 | <p>New modules for Toroidal Nuclear Reactor System Trigger Control (TCABR) at INSTITUTE OF PHYSICS OF THE UNIVERSITY OF SAO PAULO, Brazil<br/><i>Technological Initiation by University of Sao Paulo</i><br/><i>Advisor: Ricardo Magnus Osorio Galvão</i></p> <p>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 microcontrolled 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).</p>  |
| JUN 2011 - JUN 2016 | <p>WorldSkills Training at SENAI "ROBERTO SIMONSEN", Brazil</p> <p>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:</p> <ul style="list-style-type: none"><li>• <b>HARDWARE</b> - 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.</li><li>• <b>SOFTWARE</b> - Development of software for microcontrollers in C, C++ and/or Assembly languages</li><li>• <b>MEASURES AND REPAIRS</b> - Detection of defects, consequently, repair of available hardware and subsequently performed measurements according to hardware manuals and documents.</li><li>• <b>ASSEMBLY</b> - Mechanical and electronic assembly of devices made available with manuals and documents.</li></ul> |

## LANGUAGES

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PORTUGUESE: Mothertongue  
ENGLISH: Very good Writing and Reading, good Speaking and Listening  
SPANISH: Fair Writing, Reading, Speaking and Listening  
JAPANESE: Fair Listening

## COMPUTER SKILLS

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Advanced Knowledge: C/C++, Assembly, Python and Javascript.  
Intermediate Knowledge: vBA, Excel, Word, PowerPoint, Linux and Windows and Hardware maintenance.  
Basic Knowledge: PHP, mySQL, HTML, Access

## HONOR AND AWARDS

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

## INTERESTS AND ACTIVITIES

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