

Tiago Gomes Castro

Nationality: Brazilian | **Age:** 37 years

Current Location: Porto, Portugal

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Education

Teleinformatics Engineering with Emphasis on Computer Systems

Federal University of Ceará (UFC) | Graduation: December 2015

Validated in Portugal: [DGES](#) | Registration: 220230069052

Courses

October 2023

TESSY 4 | Hitex Embedded Tools & Solutions | 20 hours

[Certificate](#)

October 2023

Functional Safety Training - Modules 1 and 4 | TÜV SÜD Rail GmbH | 16 hours

[Certificate](#)

May 2018

Embedded Systems - Shape The World: Microcontroller Input/Output | EDX | 40 hours

[Course](#)

February 2016

Introduction to Embedded Linux | University of Nice Sophia-Antipolis

September 2010

VHDL Language | 20 hours

July 2010

Object Oriented Programming using Java | 40 hours

Professional Experience

Intellias | Porto, Portugal

Strong Middle Embedded Engineer

July 2023 - Present

[Website](#)

Main Activities:

- Detailed design, development, and unit testing of automotive embedded systems with ultrasonic sensors.

Capgemini Engineering | Porto, Portugal

Professional B2 Engineer

November 2021 - July 2023

[Website](#)

Main Activities:

- Technical team leader in automotive HMI and Powertrain projects.
- Detailed design, development, and unit testing.
- Maintenance of project test benches.

Systronix | Fortaleza, Ceará, Brazil

Firmware Developer

January 2021 - October 2021

Main Activities:

- Firmware development for traffic speed measurement devices and STM microcontrollers with FREERTOS.

Eletra Energy Solutions (Hexing Group) | Fortaleza, Ceará, Brazil

Firmware Analyst

September 2019 - January 2021

[Website](#)

Main Activities:

- Porting LoRaWAN library to NIC.
- Using Cosem/DLMS protocols to interface with smart electric meters.

Atlanta Information Technology | Fortaleza, Ceará, Brazil

Firmware Developer

April 2017 - September 2019

[Website](#)

Main Activities:

- Digital signal processing methods to measure vehicle speed.
- Firmware development using PIC18F microcontrollers.

INPE – National Institute for Space Research | Fortaleza, Ceará, Brazil

Model Based Designer – CNPQ Internship

May 2016 – March 2017

[Website](#)

Main Activities:

- Development in Xilinx FPGA to process messages for the Brazilian Space Data Collection program.

LESC – Computing Systems Engineering Laboratory | Fortaleza, Ceará, Brazil

Firmware Developer

February 2014 – September 2015

[Website](#)

Main Activities:

- Firmware development for signal processing in analog telephony systems.

LESC – Computing Systems Engineering Laboratory | Fortaleza, Ceará, Brazil

R&D Internship

July 2010 – December 2013

Main Activities:

- Research and development in Network on Chip (NoC) using VHDL and C.
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Technical Skills

- Experience in C Embedded Development
 - Intermediate in C++ Development
 - Python for writing test scripts
 - CMake
 - Intermediate knowledge in FREERTOS
 - Operating Systems: Linux and Windows
 - ARM Architecture
 - STM32 ARM-based Microcontrollers
 - PIC Microcontrollers
 - Versioning with Git and SVN
 - Handling laboratory measurement equipment (Oscilloscope, Signal Generator, Multimeter)
 - English Level: B2
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Soft Skills

- Problem-solving
 - Teamwork
 - Leadership
 - Attention to Detail
 - Time Management
 - Interpersonal Skills
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Extracurricular Activities

VHDL Course Instructor

October 2014 and November 2013

Workload: 12 hours and 14 hours, respectively.

Teaching Assistance

August 2013 – November 2013

Subjects: Computer Systems, Digital Electronics, and Microprocessor Systems

University Meetings 2011 – UFC

Co-author in research papers on on-chip networks:

- [THOR: An on-chip network for real-time systems](#)
 - [Simulation of on-chip networks using OMNET++](#)
 - [Traffic generator environment and analysis for on-chip networks](#)
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