Ailton Andersen Sanches Ferreira Lopes

MSc, Industrial Electronic and Computer Engineering

A motivated learner with self-positive attitude and critical thinking, capable of being a team player with proactiveness and intellectual curiosity.

ronnytarrafal@gmail.com ✉

+351913660094 📱

Rua Teixeira Pascoais N602 - 4º DT, 4800-073, Guimarães, Portugal 📍

06 October, 1994 📅

linkedin.com/in/andersen-esrg18 in

Andersenbond Ⓢ

github.com/Andersenbond ⓞ

stackoverflow.com/users/7510090/andersen

EXPERIENCE

Researcher in the framework of the Sensible Car project: Automated Driving

Workplace/Company

01/2019 – Present
BOSCH in partnership with Minho University

Achievements/Tasks

- The work plan in the "Electrical Engineering / Electronics / Telecommunications" profile and consists of: (i) studying and analyzing GNSS-SDR (Global Navigation Satellite Systems software-defined receiver) library, (ii) porting the GNSS-SDR library for the ZYBO platform (Zynq-7000), and (iii) implement library sub-components into FPGA hardware blocks

MSc. Industrial Electronics and Computers Engineering

Minho University ↗

09/2016 – 11/2018

Master thesis

- Porting LTZVisor to i.MX 6Quad SD ↗

More: LTZVisor : https://github.com/tzvisor/ltzvisor

ACADEMIC PROJECTS

HoneyCloud: Internet of things (IoT) in the control and management of beekeeping (10/2017 – 03/2018)

- To achieve a non-destructive industrial agriculture, remote-control and automation is the solution. The Internet of Things (IoT) has exponentially grown in the last few years. Many devices are now connected to the internet. This technology is the perfect tool towards beekeeping monitoring system.

µRTZVisor Secure Boot & DSL, 4th year, class project. (02/2017 – 06/2017)

- Development of the secure boot mechanism for a Microkernel-like Real-Time TrustZone-assisted Hypervisor, accompanied by a Domain-Specific Language to model the secure boot parameters.
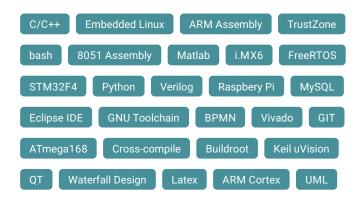
Robby – Self Balancing Robot , 4th year, peer project. (10/2016 – 02/2017) ↗

- A two wheeled Robot running the Real-Time Operating System FreeRTOS, controlled by an Android Application using Bluetooth Communication.

T.W.C.V - 3 Ways Controlled Veicle, 4th year, peer project. (10/2016 – 02/2017) ↗

- The main purpose of the project is to design and implement an embedded system capable of tracking the movements of a hand in real-time using inertial measurement unit sensors (accelerometer) to control a robot that simulate the wheelchair.

SKILLS & PLATFORM AND TOOLS

C/C++ · Embedded Linux · ARM Assembly · TrustZone · bash · 8051 Assembly · Matlab · i.MX6 · FreeRTOS · STM32F4 · Python · Verilog · Raspbery Pi · MySQL · Eclipse IDE · GNU Toolchain · BPMN · Vivado · GIT · ATmega168 · Cross-compile · Buildroot · Keil uVision · QT · Waterfall Design · Latex · ARM Cortex · UML

MAIN AREA OF INTEREST

Real-time Operating Systems

Low Level Programming

Linux Device Driver Development

Operating Systems Virtualization

ARM Processor Architectures

Systems Sensor Integration and Testing.

Security Oriented Embedded Systems Development

Robotics and Kinematics of Manipulators

LANGUAGES

Portuguese	● ● ● ● ●
English	● ● ● ● ○
Italian	● ● ○ ○ ○