

Martín Ribelotta

Currículum Vitae

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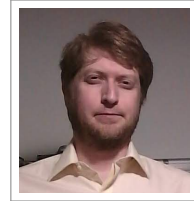
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📄 www.github.com/martinribelotta

🌐 [martin-ribelotta](https://www.linkedin.com/in/martin-ribelotta)

Birth: March 10 of 1984



2011–2019 **Embedded System Developer**, *Emtech S.A.*, Bahia Blanca/Bariloche.

Works made:

- DSP simulation and testing for radar in VHDL using Questasim/Modelsim
- Design of acquisition software using Virtex6 FPGA over PCI-express
- Design and implementation of HDL software for radar simulation over FPGA through PCIe.
- Design and implementation of HDL, base software, drivers and web application for remote control for acquisition subsystem board based on FPGASoC Zynq7000.
- Implementation of Softcore LEON3 on Atlys board (Spartan6) (soft core customization, boot, linux embedded, RTEMS and bare metal)
- RTEMS ports to custom board with Cortex-M4 (serial driver, SPI and I2c).
- Design and implementation of bridge SPI to AHB.
- Design and implementation of software and modification of the manufacturer's HDL for high-speed communication on telecommunication board over FPGA Virtex5 and DSP Blackfin over usb.
- Start-up of Linux systems on ARM9 + FPGA board and implementation of driver for FPGA-SoC bridge.
- Preliminary routing and revision of the CIAA-NXP board.
- Schematic port and FPGA + SoC board PCB from OrCad to KiCAD.
- Design of ad-hoc protocol for LoRa network
- Design and implementation of IoT communication and control software over RTOS in CorterxM4.
- Arduino API migration for diferent platforms

2009–2011 **Hardware/Software embedded designer and application developer**, *EyCON S.A.*, Bahia Blanca.

Works made:

- Hardware/Software redesign of veicle tracking system.
- Hardware design, startup and mass-production of Bahia Blanca's RF-id Bus machines.
- Middleware design of software for data loggin software of Bahia Blanca's RF-id Bus machines.

2008 **Junnior Developer**, *Ventania Labs.*, Bahia Blanca.

High Performance Computing developer.

Works made:

- Startup and maintenance of HPC clusters
- Image recognition programming in python with OpenCV.

Skills

Programming

Expertice C/C++, Java, Python, VHDL, x86/ARM/RISC-V ASM

Advance Javascript, Tcl, Awk, bash/sh, R(MATLAB), SPARC-ASM

Mid Perl, Ruby, PHP, Verilog/SystemVerilog, C#, TeX/LaTeX

EDA Tools

PCB Design OrCAD, Altium PCB, KiCAD, Eagle

HDL/FPGA Xilinx ISE, Vivado, LiberoIDE/LiberoSoC, LatticeMicro Diamond, YoSYS/ArachnePNR

IDEs Eclipse, QtCreator, Vim, Matlab, SciLabs, VisualStudio

Operating systems

- Linux Administration and maintenance of Ubuntu, Debian, Red HAT, SuSe, Slackware and others
- Embedded Buildroot, Yocto, Linux From Scratch, OpenWRT, QNX
- RTOS FreeRTOS/OpenRTOS, RTEMS, eCos, RTLinux, RTAI, vxWorks, ChibiOS, iTron&derived, OSEK&derived, MBED-os

Languages

- Spanish Native *Mother tongue*
- English Fluid read/write, Basic conversational *Autodidact*

Personal Projects

CIAA Project

- o Actually sub-coordinator
- o Firmware co-maintainer
- o PCB Design of CIAA-NXP version
- o Micropython port maintainer

Personal Projects

- o Cortex-A9 developer board: *@github:Board-RZA1L*
- o Embedded-IDE: *@github:embedded-ide*
- o Executable loader for embedded devices: *@github:elfloader*
- o ChibiOS javascript interpreter: *@github:ChibiOS-JS*

Teaching experience

- o Cortex-M3 Introduction (UTN FRBB 2011): *@github:curso_cm3_2011*
- o Embedded Linux driver developmen (SASE 2011-2012): *@SASE2011*
- o Sotfware Licences (UTN Avellaneda 2015): *@github:licence-beamer-es*
- o Micropython over EDU-CIAA. PyCON-AR Bahia Blanca 2016 *mpy-pyconar2016@youtube*

Academic formation

- 2004–2011 **Ing. Electrónico [Electronic Engineer]**, *UTN FRBB*, Bahía Blanca, I have completed 4 over 5 years of bachelor's degree in electronic engineering.