

FabioMaschi

personal

Italian
25 years old

contact

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languages

french ★★★★★
english ★★★★★
portuguese ★★★★★
italian ★★★★★☆
spanish ★★☆☆☆
german ★☆☆☆☆

tech

vhdl, latex,
fpga, GPU
python, c/c++
matlab, SoC
embedded systems
CPU architectures
real time systems
information processing
mapping & routing
raspberrypi, upnp

interests

professional: project
manager, hardware &
software design, agile
methodologies

personal: aeronautics
drones, languages
swimming, cooking
couchsurfing

education

- 2018 – 2022 **Doctor of Philosophy** [ETH Zürich, Switzerland](#)
- 2015 – 2018 **Master of Engineering** [Paris-Saclay University, France](#)
Electronic, Energy and System
Real-time Computer Engineering; FPGA Conception; DSP Conception; Framework .net
C#; Graphic Acceleration Techniques; Embedded Android; Distributed Applications HCI;
Parallelism & video; Financial Markets; Enterprise Social Responsible.
- 2017 – 2018 **Master of Science** [Paris-Saclay University, France](#)
Embedded Systems and Information Processing
Advanced Architecture; Safety & Security of Real-time Systems; Embedded Processors &
Specialised Architectures; Parallel Architecture & Programming; Instrumenting & Interfacing
of Embedded Systems; Robotic Vision; Vocal Recognition & Interaction.
- 2016 – 2017 **Affiliate student on 3rd year BEng** [University College London, England](#)
Electronic and Electrical Engineering
Electronic Circuits III; Advanced Digital Design; Image Processing; Programming & Control
Systems; Control Systems II; Digital Signal Processing & Systems; English Language Skill
for Academic Purposes; Management Accounting for Decision Makers.
- 2014 – 2015 **Bachelor of Science** [Paris-Sud University, France](#)
Information, Systems and Technologies
Energy Conversion; Signals, Systems & Automation; C Programming; Probabilities; Digital &
Analogical Electronics; Experimental Physics; Physics & Materials for Information & Energy;
History of Electricity & Electromagnetism; Entrepreneurship Knowledge.
- 2011 – 2014 **Bachelor of Engineering** [Pontifical Catholic University RS, Brazil](#)
Computer Engineering (not completed)
Circuit Analysis, Computational Methods, Computer Architecture, Computer Logic, Com-
puter Organisation, Digital Circuits, Electromagnetism, Operational Systems, Programming,
Signals & Systems, Software Engineering, Technical Drawing, Theory of Computability.

experience

- Mar – Sep'18 **CEA Saclay - Master's Thesis** [Palaiseau, France](#)
Study, optimisation and implementation of the memory organisation of a scalar
and low energy consumption neural network accelerator hardware architecture.
VHDL, FPGA, ASIC, Testbench, AMBA AXI4, memory hierarchy, artificial intelligence.
- Oct'16,'17,'18 **iGEM Foundation - Judge at the Giant Jamboree** [Boston, United States](#)
Judged 33 teams and 18 finalist nominees during the 2016, 2017 and 2018 Giant
Jamborees (5,400 participants, 310 teams from 44 countries) on Measurement,
Diagnostics, Environment, High School, Hardware, Energy and Software tracks.
- Jun – Sep'17 **INESC-ID - R&D Engineering Internship** [Lisbon, Portugal](#)
Exploitation of Data-Flow Parallelism and Stream Processing Paradigms within Re-
configurable Processor Architectures.
CPU Architecture, VHDL, Simulation, Testbench, Xilinx Virtex7, risc-v, MicroBlaze, mb-lite.
- Jul – Aug'16 **EZ Biometrics, IncubAlliance - Summer Internship** [Orsay, France](#)
Conception of a high performance platform for identification and authentication
based on biometrics. Designed for high demand clients (between 10M and 500M
people): banks, civil security and governments.
Qt, C++, Parallel Processing, Software Architecture, MySQL, Image Processing.

- May – Dec'12 **PUC-RS / Hewlett-Packard Alliance** [Porto Alegre, Brazil](#)
Intern at Center for Research and Applied Computing
 Studied and validated prototypes of cutting edge technologies on cloud computing and mobile applications. Managed the Mobile team, attending internal client meetings weekly.
 Bluetooth, NFC, Wifi Direct, UPnP, C++, C#, Java, Android, HCI, Agile Methodologies, Tortoise SVN, Eclipse, Visual Studio, Linux Ubuntu Server, Quality reporter.
- Sep'11-Apr'12 **TechPlugX Solutions** [Porto Alegre, Brazil](#)
Part-time System Developer Junior
 Worked for the financial market, created a trading solution homologated by *BMF & BOVESPA* to manage the operating table and to generate trading algorithms.
 C#, Microsoft SQL Server, Safety and Security Tests, Jenkins, Tortoise SVN, Network.

miscellaneous

- 2015 - 2016 **Tandem International** - International Relations Office [Paris-Saclay University, Orsay](#)
 Welcomed foreign students and introducing them to the French culture. Designed an open-source automated system for the registration and management.
- 2013 - 2016 **iGEM Paris-Saclay** [Orsay, France](#)
First year as Student, then promoted to Advisor
 Conception of Synthetic Biology projects, manipulation of bacteria DNA in order to change their functions. Held ethic debates, reflexion and public engagement with the society. Promoted and represented the team at the conference in Boston.

honors & awards

- 2014, '15, '16 **iGEM** - International Genetically Engineered Machine [Boston, United States](#)
 Gold ('14) and Bronze ('15,'16) medals for the projects *This is Not a Lemon*, *SafetE.coli* and *iJ'aime Get DNA Closer* by iGEM Paris-Saclay teams.
- Dec 2014 **CAPS: Made in Saclay** student category [Orsay, France](#)
 Public recognition for the project *This is Not a Lemon* by iGEM Paris-Saclay 2014.
- Jun 2011 **PUC-RS / Microsoft / Dell** - Student to Business [Porto Alegre, Brazil](#)
 Honorable Mention for the best final project of the *System Development* module.

projects

- 2018 **A Shared Journey** [SFR GameJam, Paris](#)
 Designed, created and developed a multi-OS video-game in forty-eight hours. Available at github.com/gandrin/ASharedJourney.
 Go, Tiled, VisualCode, hackaton, GitHub
- 2018 **Airbus A320 Cockpit** [Paris-Saclay University, Orsay](#)
 Programmed the control block and hardware-software communication for a refuelling system from an overhead hardware of a A320 cockpit.
 Skalarki Electronics, FSUIPC, WideFS, Microsoft Flight Simulator X, GitHub
- 2015 **Flight Simulator Autopilot** [Paris-Saclay University, Orsay](#)
 Programming of a Flight Simulator autopilot in C++ language. Speed, altitude and heading control systems using a PID controller for Cessna 172 aircraft.
 c++, FSUIPC, WideFS, Microsoft Flight Simulator X