CURRICULUM VITAE

PERSONAL DATA:

Name:	Luca
Surname:	Rigazzi
Date of birth:	02.07.1987
Place of birth:	Locarno (CH)
Address:	Rue des Jardins 24
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Marital status:	Single

WORK EXPERIENCES:

08/2018 - today

Software automation engineer
IMA Automation Switzerland
Accomplished a variety of special-purpose-machine projects and software development. (PLC Beckhoff, Vision corrected positioning)

Special machine:
- Dispensing machine for watch making
- Precision assembly machine for printing heads
- Precision assembly machine for medical devices

Software development:
- Small software developments with Python for internal use
- Python API and simple Angular App

R&D:
- PLC Software development (Internal framework)
- Analysis and tuning for motors and drives.

09/2012 – 07/2018

R&D Project engineer
IESE, HEIG-VD
Accomplished a variety of electrical energy, automation, power electronic and electric grid projects.

Electrical energy & automation:
- Conceived and realized a 10 kW batteries and Fuel Cells test bench (LabVIEW, automation)
- Control system, interface and algorithms for a 100kW/ 63kWh battery for LV grid management (Labview, DataBases PLC Beckhoff, HMI LabVIEW)
- Software for an electric and fuel cell boat (PLC Beckhoff, HMI)
- 20 kW fuel cell trailer for LV grid applications (PLC Beckhoff, HMI Touch Display, CanBus)
- 4 kW fuel cell system (PLC-HMI Beckhoff, CanBus)

Electric motors & Power electronic:
- Conceived and tested a control for an active way linear motor.
  (Control, electronic, many-DSP, data communication)
- Conceived a 5 kW DC-DC converter (DualCore processor
  ARM/DSP, ZigBee)

Electrical grid
- Different studies and simulations of low voltage grids
  (EOS Holding, SIG Genève)

06/2014 – 09/2014 **Outsourcing Project**
DepSys SARL
Software and part of development for a wood conditions proof device
(micro-controllers, sensors, LCD Display, Bluetooth)

SCHOLAR EXPERIENCES

2023 **Master of Advanced Studies in Predictive Maintenance**
HES-SO, HE-Arc
(Python, Docker, Databases design, Machine Learning,
Multiprocess acquisition system)

2022 **CAS-IDD, Software engineering & Data management**
HES-SO, HE-Arc
(Python, Data management and visualization with Python, MVC and HMI
with JAVA, Software deployment, Legal aspects, Forensics and audit)

2021 **CAS-GMA, Software engineering & agile development**
HES-SO, HE-Arc
(Project management, Team leadership, Design patterns JAVA, Software
industrialization, Quality management)

2021 **CAS-DAR, Rich applications development**
HES-SO, HE-Arc
(Frontend with Angular, Backend frameworks LARAVEL-RUBY-SPRING,
Android mobile App, Linked data)

2020 **CAS-DAR, WEB applications development**
HES-SO, HE-Arc
(HTML, CSS, JavaScript, SEO, Design and development of databases,
Backend with PHP)

2017 **13 weeks intensive course, B2 TELC certificate**
Carls Duisber Institut, Cologne (D)

2008-2012 **BSc in Electric engineering / energetic systems**
University of Applied sciences (HEIG-VD)

TECHNICAL SKILLS:

- Automation and machine development with Beckhoff products
- Motion control
- Data handling and visualization with Matlab and Python
- Low voltage grid simulation with Neplan
- Data transfer (RS232, I2C, SPI, MCBSP, Bluetooth, MODBUS TCP, TCP IP, Ethernet IP, CAN)
- Web technologies (HTML, CSS, Java Script, PHP, Laravel, Angular, VueJs)
- Good knowledge of National Instrument products (Labview)
- Git

COMPUTER SKILLS:

- Good knowledge of Microsoft® Windows environments and Office package (Word, Excel, PowerPoint, OneNote and Outlook)
- Familiar with the use of scientific literature

PUBLICATIONS

- Réseaux de distribution basse tension en courant continu, Bulletin Electrosuisse AES-VSE, septembre 2014
- Speed Control of a Multiphase Active Way Linear Motor Based on Back EMF Estimation, DOI 10.1109/TIE.2015.2463762, IEEE Transactions on Industrial Electronics, 2015

LANGUAGE SKILLS:

French   C2, fluent/advanced in spoken and written
English   C1, Professional Knowledge in spoken and written
German   Telc B2, Cologne October 2017 in spoken and written
Italian   Mother Tongue

SOFT SKILLS:

- Solution-oriented
- Networked thinking
- Creativity
- Flexibility
- Ability to work in team
- Willingness to learn new skills and concepts

REFERENCES:

References are available on request