JONATHAN GASPOZ

ENGINEER AND INNOVATOR

I am social and understand that communication is vital for a company. I always try to be proactive and put the company's interests first. With a wide range of skills, my polyvalence is my force, from software to hardware, I'm also aware that engineer decisions do not depend only on the most technical solutions, I decided to pursue an Interdisciplinary Master's in Innovation to understand the business and design challenges.

Scan my qrcode and have a look at my profile!

CONTACT

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Sion, Valais
Swiss citizen

SOFTWARE

Object-oriented programming
Embedded systems, IoT
Model Based
States Machines
Architecture Abstraction Layers
V&V, Validation & Verification
Web development

C++ • C • C# • .NET • JAVA
HTML • CSS • PYTHON • UML
ASM • RTOS • VHDL

CAN • SPI • UART • TCP/UDP • BLE
MQTT • SQL • NoSQL

GIT • MATLAB/Simulink • QT
ITEMIS • CCStudio • MPLABX
LINUX

HARDWARE

PCB design
Power electronics
Analog circuits
Testing and calibration
Technical doc. (ICD, SSD, ...)
CAD design, 3D printing

ALTIUM • LTSPICE • CURA
INVENTOR • FUSION360

INNOVATION

Design thinking, Agile, Focusgroup
SCRUM, interdisciplinary teamwork
Intellectual property
Financial plan, segmentation
Business model - BMC, VPC
Lean manufacturing
UI/UX design, Growth hacking

LANGUAGES

French : native
English : Professional B2-C1
German : Professional B2-C1
Ich verstah Schwitzerdütsch !

ENGINEERING EXPERIENCES

DUFOUR AEROSPACE Electrical Propulsion Engineer — aug 2023 - now

As an Electrical Propulsion Engineer at a Tilt-Wing VTOL Drone Company, I contribute to the development and testing of a hybrid propulsion system. My role involves assembling a test bench with an electric motor/generator, Electric Speed Controller (ESC), and inverter, coupled with a two-stroke thermal engine to deliver 15kW of electrical power.

I design and implement a Hybrid System Controller, from hardware, PCB layout to embedded software, using a certified MCU and Firmware. The software is model based including a state machine for startup-sequence, system precharge, as well as several PID control loops, sensor data acquisition and telemetry via CAN. The software Architecture abstract the hardware layer from the Model based Application layer.

Additionally, I develop a serial interface board supporting UART, RS232, and RS485 communications. As part of an innovative aviation company, I am used to aviation standards, redundant electrical systems, tests, V&V - validation and verification.

SMART PROCESS LAB Scientific Collaborator — 2021 - 2022

I worked on R&D projects in the digitalization of industrial companies. Focused on Industry 4.0, data management and preservation of employees' know-how.

BACHELOR THESIS Hardware & Software Engineer — 2020

Development of an e-bike battery with fast recharge, this battery integrates a BMS (Battery Management System) and a Bluetooth Low Energy communication.

SKOLTECH SPACE WINTER SCHOOL Hardware & Software Engineer — 2W in 2020

I built a cubeSat and launched it into the stratosphere. The objective was to collect and interpret meteorological data. All that in 2 week in foreign university.

SYDERAL SA Electronic technician — 2015 to 2017

Development of test equipment in a Swiss company active in space industry.

INNOVATION EXPERIENCES

MASTER THESIS Innovation Entrepreneur — 2021 - 2022

Create the NEMSUS start-up company and produce a device to help doctors treat Alzheimer's-related diseases. This work integrated all the steps of design thinking, from the research of problems to the development, industrialization and Business viability.

INNOVATIVE PROJECT RESEARCH Workshop Facilitator — 2021

Research of problems and innovative projects @ Constellium - Aluminium Industry.

FORMATIONS

IPMA - LEVEL D Project Manager — 2021 - 2022

Certification in project management.

MASTER IN INNOVATION - INNOKICK Innovation Entrepreneur — 2020 - 2022

"Start-up master" where I worked in an interdisciplinary team composed of engineer, economist and designer. I was able to learn all the steps of creating innovative products/services from idea, R&D, Business viabilty and market launch.

BACHELOR BILINGUAL FR/DE HES-SO VALAIS-WALLIS — 2017 - 2020

Engineer in Industrial system, specification : infotronics, hardware & software

CFC + Maturity at CAMPUS EPTM Electronics Technician — 2013 - 2017

Apprenticeship as an electronics technician with integrated professional maturity.

Diligent award

Awarded to a single student in the electronics class at l'école des métiers.

OTHER EXPERIENCES

Army + Civil servant at Natural Park of Finges — aug 2022 - april 2023

Free of all military obligations!

Learning journey — 2017

2 months solo journey through Vietnam at the age of 20.

Ski Instructor J+S — 2014 - 2018

Ski teacher Youth and Sport, 4 seasons at the ESS of Morgins.

Alpin ski competition — 2002 - 2013

Alpine ski, sport study program until the age of 17, before my apprenticeship.