Nando Marcel Galliard

Msc ETH Electrical Engineer

Zurich | Switzerland | Swiss citizen

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galliard.ga contains all project papers

Education

Master of Science ETH Zürich *09/2020 - 03/2023*

Electrical Engineering & Information Technology

Major: Embedded systems design and very large systems integration

Minor: Communication networks and machine learning

Bachelor of Science ETH Zürich *09/2016 - 08/2020*

Electrical Engineering & Information Technology

Major: Communication networks and very large systems integration

Minor: Powerelectronics

Matura *09/2008 - 07/2014*

EMS Schiers, Grisons

Major: Mathematics and Physics

Minor: European History

Corporal - Team Leader Telematics *09/2019 - present*

Civilprotection - Grisons FU GFS Cavalcade 3

Projects

Master Thesis *08/2022 - 02/2023*

Design & Validation of Power Tracer / Sensor Emulator for Evaluation of Embedded Systems

FPGA based source measurement unit with 6 analog power channels, logic ports and sensor emulation for device under test.

Tools & Technologies: C, C++, Python, SystemVerilog, Altium Nexus, Git, Latex

Semester Thesis #2 *03/2022 - 05/2022*

Fusion of BLE Direction Finding and UWB Ranging for Indoor Localization

Design and Validation of single anchor localization system by combining BLE angulation and UWB lateration with Zephyr real-time operating system based firmware.

Tools & Technologies: C, C++, Python, Zephyr, nRF Connect, Git, Bash, Latex

Semester Thesis #1 *11/2021 - 02/2022*

Battery-less always-on smart camera with Sigfox Networks

Design and Validation of On-site energy harvesting with solar panel, face recognition with Tensorflow C and data transmission with long range wireless access network.

Tools & Technologies: C, C++, Python, STM32 Cube IDE, Altium Nexus, Tensorflow C, Git, Latex

Satellite Land Use Mapping for Rapid Infrastructure Planning *09/2021 - 12/2021*

Automatically mapped complex urban land use patterns from highres satellite images.

Tools & Technologies: Python, Tensorflow (Keras), Pandas, Git, Latex

Fictional business proposal on the creation of a big data based guide *02/2021 - 05/2021*

Department of Management, Technology, and Economics, ETH Zürich

Tools & Technologies: Office, Latex

Building a mini-Internet *02/2020 - 12/2021*

Enabling end-to-end connectivity across 80 Autonomous Systems

Composed of hundreds of network devices, features including Link failure detection, load balancing and traffic control.

Tools & Technologies: Python, Bash, FRRouting, Git, Latex

Skills

Programming Languages	***Experienced:*** Python | C
	Familiar: C++ | SystemVerilog | Bash | Powershell | SQL | Matlab
Frameworks	Docker | GIT | CLI | Office | Backend Developer
Libraries	Jupyter | Matplotlib | Numpy | Pandas | Scikit-learn | Tensorflow (Keras)
Embedded Design	Altium NEXUS | Zephyr | nRF Connect | STM32 Cube IDE
Languages	***Native:*** German ***Fluent:*** English

Extra

- Teaching assistant for professorship of high power electronics at ETH Zurich over FS 2021
- Salesman for MediaMarkt Chur from 2016 until 2020 as a sidejob
- Tutor for grammar school level math and physic at Fit4School