Daniel **Wirzberger Raimundo**

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Max-Bill-Platz 15, CH-8050 Zürich **i** Born June 3rd 1996 Swiss

Student in electronics thrilled by the fields of signal/image processing and machine learning, with a strong focus on maths.

🎓 Education

Present **2018**	**Master of Science in Electrical Engineering and Information Technology, ETHZ, Zurich, Switzerland** > Major in Signal Processing and Machine Learning; > 2018-19 : Fulfilling HES->ETH requirements. Course highlights : Communication Networks, Control Systems, Discrete-Time and Statistical Signal Processing, Introduction to Machine Learning.
2018 **2015**	**Bachelor of Science in Electrical and Electronics Engineering, HEIA-FR, Fribourg, Switzerland** > *Bachelor's thesis* : 'AMACv2 Prototype Testing', Design and commissioning of a custom testbench based on a Zync SoC for CERN ATLAS's new ASIC, done at the Physics Division of the LBNL (6/6); > 6th *semester project* : 'SelfPos', Design and implementation of an image acquisition (on an FPGA) interfaced with an image processing system (in MATLAB), for the feature extraction (mainly contact angles and volume estimation) of droplets, used for a novel IC self-positioning technique (5.9/6); > 5th *semester project* : 'AD_SigmaDelta', Characterisation of an A/D converter made of a Sigma-Delta modulator and newly designed decimation filters, automated using PyVISA to send low-level SCPI commands to the power supplies, oscilloscope and logic analyser (6/6); > 4th *semester project* : Conception of the hardware (drivetrain, power regulation, rx/tx) and software (rx/tx communication and custom PWM for motor control) parts of a rugby robot made in collaboration with mechanical engineering students. Bilingual studies (French/German); GPA : 5.76/6 (best average over all BSc programs at HEIA-FR).
2015 **2011**	**Federal Certificate of Capacity in Electronics, ETML, Lausanne, Switzerland** > Professional Technical Maturity Certificate; > 4th *year* : Specialisation in electronics.

💼 Experience

August 2018 **May 2018**	**Physics Affiliate, Lawrence Berkeley National Laboratory, Berkeley, CA, USA** > FW/SW design, testing and commissioning of a custom testbench for one of CERN ATLAS's new ASICs.
April 2018 **August 2013**	**Sales Clerk, COOP, La Sarraz, Switzerland** > Customer contact and Logistics / Inventory management.
November 2013 **August 2013**	**Internship student in R&D, Advanced Silicon, Lausanne, Switzerland** > Mounting prototypes for the lab, hand-soldering of SMD downto size 0402; > Measurement automation using GPIB-equipped instruments;

▤ Skills

Communication :	Strong team spirit and good ability to synthesize/transmit technical subjects.
Organisational :	Skilled at planning and prioritizing tasks, detail orientated.
Job-related :	> Long experience with measuring instruments (oscilloscopes, logic analysers, spectrum analysers), and measurements ranging from MV to VHF domains. > Solid soldering and prototyping skills, knowledge of ESD prevention techniques; > Experience with material ordering, reception, distribution, storage and shipping; > Worked with multiple **microcontrollers** : C515, C8051, MSP430, TM4C, 328P; MicroZed **SoC**; **FPGAs** : Spartan3a/6, Artix-7; Allowing for a good adaptability to new environments. > Analytical thinker and logical electrical/informatic troubleshooter.
Programming languages :	**C**, **Python** (Keras, OpenCV, scikit-learn/-image), **MATLAB**, **VHDL**, **SCPI**, LaTeX, C++, asm, Java.
Specific software :	**Eclipse**, **git**, Vivado/Xilinx ISE, DxDesigner, OrCAD, Flux2D, Simulink.

🌐 Languages

> French, German : Native languages;
> English : Proficient user (C2);
> Portuguese, Swiss-German : Independent user (B2);

✚ Extra-curricular

> Ambitioned athlete (strava);
> Scout Patrol leader for 4 years;
> SLRG-Certified lifeguard (also for lakes and rivers);