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| |  |  | | --- | --- | | Milan, Italy | Leonardo Airoldi | | ELECTRONICS Engineer | | | |
| contacts [LinkedIn](http://www.linkedin.com/in/leonardoairoldi)  +39 3200289028  Envelope with solid fill [leonardo.airoldi@live.com](mailto:leonardo.airoldi@live.com)  [GitHub](https://github.com/leonardoairoldi)  [Website](https://leonardoairoldi.github.io) TOOLs  |  |  |  |  |  | | --- | --- | --- | --- | --- | | MATLAB | | | | | |  | | | |  | | Simulink | | | | | |  | | | |  | | Cadence Suite | | | | | | * Genus * Xcelium | * Virtuoso * Capture | | | | |  | | |  | | | LTspice | | | | | |  | |  | | | | Xilinx Vivado | | | | | |  | | |  | | | 3D CAD | | | | | |  | |  | | | | Linux Environment | | | | | |  | | |  | | | PowerPoint | | | | | |  | | | |  | | Excel | | | | | |  | | | |  |  PROGRAMMING  |  |  |  |  | | --- | --- | --- | --- | | C | | | | |  | | |  | | C++ | | | | |  | | |  | | MATLAB | | | | |  | | |  | | VHDL | | | | |  | |  | | | Python | | | | |  |  | | | | Java / C# / OOP | | | | |  |  | | |  SOFT Skills  |  |  | | --- | --- | | Teamwork | | |  |  | | Engineering Reports | | |  |  | | Meeting Presentations | | |  |  | | Project Scheduling | | |  |  | | Time Management | | |  |  | | Team Communication | | |  |  | | Continuous Learner | | |  |  | | Problem Solving | | |  |  |  Languages  |  |  |  | | --- | --- | --- | | English – B2 | | | |  |  | | | Italian – C2 | | | |  | |  |  INTERESTs  |  | | --- | | • Music • Electric Guitar • Bass Guitar • 3D printing • Self-hosting • IoT • HPC • Smart-Home • Electric Vehicles • AI • Economy • Physics • Tennis • Windsurf • Bikes • Basketball • Snow Skiing • Nature • | |  | |  |  |  |  | | --- | --- | --- | --- | | User with solid fill | | Profile | | |  | *Passionate Electronics Engineer, willing to learn and tackle challenges of today's world* | |  |  |  |  |  | | --- | --- | --- | --- | | Gears with solid fill | | EXPERIENCE | | |  | Processor with solid fill[ARPLab, Politecnico di Milano: “Time Interleaved ADCs for Wireless Applications”](https://arplab.deib.polimi.it/) September 2024 – July 2025  MSc’s Thesis at an academic research lab focused on Integrated Circuits, part of the Analog-to-Digital Converter (ADC) design team. Studied effects of non-idealities of Time-Interleaving (TI) converters used in modern wireless digital radio (Wi-Fi, 5G) receivers. Awarded 7/7 points. **Advisor: Prof. Carlo Samori**   * Conducted **research** on state-of-the-art converters. * **Developed a numerical simulator** in MATLAB based on analytical models. * Drove **performance improvements** studying state-of-the-art randomization techniques and proposing a **novel timing skew calibration** technique**.** * **Digital design** of random-TI phase generator in **VHDL** using **Cadence Xcelium**, **Genus** and **Virtuoso**, meeting project specifications in the target 28nm technology node.   Electric car with solid fill [Battery Management System Engineer at Dynamis PRC](https://www.dynamisprc.com/en/), Formula Student May 2022 – September 2024  Designed and developed software for monitoring and controlling the battery pack (accumulator), ensuring safety and performance of a Formula Student electric racing car.   * Focused on BMS firmware **architecture**, working with **FreeRTOS** inC. * Developed a **model-based** Power Limiter algorithm using **Simulink.** * Working directly with the accumulator as part of the Powertrain department. Collaborated closely with other team areas (e.g. Cooling, Vehicle Dynamics) * Assisted in project planning, progress tracking, developing engineering reports. | | | Graduation cap with solid fill | | Education | | |  | Electronics Engineering, Politecnico di Milano September 2022 – July 2025  [Grade: 102/110] Master of Science Degree focused on Integrated Circuit Electronics. Relevant courses:  • Mixed-Signal IC Design • Digital Embedded Systems Design • Analog/Digital IC Design Engineering of Computing Systems, Politecnico di Milano September 2019 – September 2022  [Grade: 107/110] Bachelor’s degree in Computer Science Engineering. Relevant courses:  • Algorithms and Information Theory • Computer Architecture and Operating Systems Liceo Scientifico opzione Scienze Applicate, IIS Vittorio Bachelet September 2014 — July 2019  [Grade: 92/100] High School Diploma focused on Scientific Subjects, including Computer Science | | | Star with solid fill | | ACTIVITIES & Certifications | | |  | [Electric car with solid fill PES-PAV Certification](https://www.texa.it/formazione/corso/qualifica-pes-pav-procedure-per-operare-in-sicurezza-sui-veicoli-ibridi-ed-elettrici-norma-cei-11-27-7/) January 2023  Certification issued by *TEXA Automotive*, regarding safety procedures for working with high voltages. [Race Flag with solid fill FS Austria Red Bull Ring](https://fsaustria.at/) – [Race Flag with solid fill FS East Hungaroring](https://fseast.eu/) July 2023 / July 2024  Attended Formula Student international competitions, working on the car at race day. Atom with solid fill [ETH Zurich Quantum Hackathon](https://qec.amiv.ethz.ch/qhack23/) May 2023  Participated in the algorithm challenge, solving the Travelling Salesman Problem using qubits. | | |