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| Milan, Italy | Leonardo Airoldi |
| ELECTRONICS Engineer  |

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| contacts [LinkedIn](http://www.linkedin.com/in/leonardoairoldi) +39 3200289028Envelope with solid fill leonardo.airoldi@live.com [GitHub](https://github.com/leonardoairoldi) [Website](https://leonardoairoldi.github.io)TOOLs

|  |
| --- |
| MATLAB |
|   |   |
| Simulink |
|   |   |
| Cadence Suite |
| * Genus
* Xcelium
 | * Virtuoso
* Capture
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|  |  |
| LTspice |
|   |   |
| Xilinx Vivado |
|  |  |
| 3D CAD |
|   |   |
| Linux Environment |
|  |  |
| PowerPoint |
|   |   |
| Excel |
|   |   |

PROGRAMMING

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| --- |
| C |
|   |   |
| C++ |
|   |   |
| MATLAB |
|   |   |
| VHDL |
|   |   |
| Python |
|   |   |
| Java / C# / OOP |
|   |   |

SOFT Skills

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| Teamwork |
|   |   |
| Engineering Reports |
|   |   |
| Meeting Presentations |
|   |   |
| Project Scheduling |
|   |   |
| Time Management |
|   |   |
| Team Communication |
|   |   |
| Continuous Learner |
|   |   |
| Problem Solving |
|   |   |

Languages

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| English – B2 |
|   |   |
| Italian – C2 |
|   |   |

INTERESTs

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| • 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 • |

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| User with solid fill | Profile |
|  | *Passionate Electronics Engineer, willing to learn and tackle challenges of today's world* |

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| 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 2025MSc’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 StudentMay 2022 – September 2024Designed 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.
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| Graduation cap with solid fill | Education |
|  | Electronics Engineering, Politecnico di MilanoSeptember 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 MilanoSeptember 2019 – September 2022[Grade: 107/110] Bachelor’s degree in Computer Science Engineering. Relevant courses:• Algorithms and Information Theory • Computer Architecture and Operating SystemsLiceo Scientifico opzione Scienze Applicate, IIS Vittorio BacheletSeptember 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 2023Certification 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 2024Attended 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 2023Participated in the algorithm challenge, solving the Travelling Salesman Problem using qubits. |

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