

Luigi Casagrande

Materials and Nanotechnology Engineer

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Education

MS	POLITECNICO DI MILANO, Materials Engineering and Nanotechnology (<i>english</i>) <ul style="list-style-type: none"> Master's Thesis in <i>Solid-State Aluminium Recycling</i> ★ Relevant coursework: "Metallic Materials and Product Innovation", "Composite Materials", "Life Cycle Assessment", "Materials for Energy" 	Sep 2023 - Mar 2026 Milano, Italy 🇮🇹
EX	SHANGHAI JIAO TONG UNIVERSITY, Materials Engineering <ul style="list-style-type: none"> <i>World Wide Exchange Program</i> offered by Politecnico di Milano ★ Projects: "Physical aging in glassy polymers: stress relaxation and creep compliance analysis", "Molecular dynamics modeling of melting behavior in pure Ni, Zr, and Ni-Zr alloys" 	Sep 2024 - Feb 2025 Shanghai, China 🇨🇳
BS	POLITECNICO DI MILANO, Materials Engineering and Nanotechnology (<i>italian</i>) <ul style="list-style-type: none"> Bachelor's Thesis in <i>Printed Devices for Energy Storage</i> ★ Relevant coursework: "Steelmaking", "CAD Modelling", "Data Analysis and Experimental Methods", "Structural Mechanics" 	Sep 2020 - Jul 2023 Milano, Italy 🇮🇹
EX	KAWANA WATERS HIGH SCHOOL, STEM subjects <ul style="list-style-type: none"> Independent study term abroad during High School 	Jul 2016 - Sep 2016 Queensland, Australia 🇦🇺

Skills

Languages: • Italian (*native*) • English (*fluent*) • Chinese (*elementary*) • French (*elementary*)

Programming & Scripting: Python · \LaTeX · JavaScript · C++ · HTML/CSS

Data Analysis & Productivity Tools: Microsoft Office (Word, Excel, PowerPoint, Access) · Power BI · JMP Pro

Engineering Design & Simulation Software: Autodesk Inventor · SolidWorks · Abaqus FEA · COMSOL Multiphysics

Technical & Scientific Computing Environments: Linux (Debian) · openLCA · LAMMPS · MATLAB

Certificates

› IELTS Academic <	issued by: <i>British Council</i>	2023
English language certification, C1 Level (7.5)		
› International Pool Lifeguard Certification <	issued by: <i>Federazione Italiana Nuoto</i>	2017
› Pre-Academic Piano Certificates <	issued by: <i>Conservatori di Musica italiani</i>	2013 & 2016
› Marine Military Sailing Course <	issued by: <i>Federazione Italiana Vela</i>	2015

About Me

- Since childhood, I have pursued **competitive swimming** at a national level, alongside an active engagement in **music** through solo and ensemble performances. These sustained disciplines have shaped a highly determined, resilient, and **results-driven approach**.
- I have always **challenged myself** by participating in mathematics, computer science, and chemistry competitions, and was awarded the 'Aurea' Cup in the high school team championship. These experiences enhanced my **teamwork abilities**, **critical thinking**, and **problem-solving** skills.
- Travelling and engaging with different cultures have enhanced my **adaptability** and **open-minded approach** to diverse environments, contributing to my full proficiency in **English** and my ongoing study of the **Chinese** language.