



PIERRE GARRABOS

24 years old | Mechanical, Structural and Composite Engineer
MSc in Mechanical Engineering | French and English C2, Italian B1

SKILLS

Mechanical, experimental and design engineering

- Specialization in solid mechanics and design of composite materials
- Light Experience in biomechanics (from classes and senior projects)
- Various Hands-on experience on 5 axis CNC machine, autoclave as well as additive manufacturing setups
- Composites and metals manufacturing

Software and tools

- Graphical modeling with 3D software : SolidWorks, Ansys.
- Programming basics in C, MATLAB and Arduino
- FEA (finite element analysis) analysis using Abaqus and Ansys
- CNC Mastercam and G-code programming
- Nesting and 3D printing

ACTIVITIES

BLACK BELT JUDO / JUJITSU - 20 years practice and for 15 years in competition

SWIMMING – Competitively during 6 years / French pre-national level in 2016.

MEMBER OF THE 180°C CLUB –

Team event and head of sponsorship team responsible for promoting local and simple cuisine for students

VOLUNTEER FIREFIGHTER – During the summer season(2019-20-21-22-23-24)

EXPERIENCE

MASTER THESIS | LABORATORY FOR PROCESSING OF ADVANCED COMPOSITES (EPFL, LAUSANNE, SWITZERLAND) | SEP 2024 – JAN 2025

Development and characterization of de-bondable sandwich structures in the context of recyclability and towards the net zero 2050 .

- Process and methods optimization for manufacturability
- Experimental and simulation trials
- Creation of process windows to assess de-bonding and recycling eligibility of composite parts in aeronautics.

R&D AND PROCESSES SUPERVISOR | SWISS SOLAR BOAT (EPFL) SEPTEMBER 2023 – JUNE 2024

Member of the composite structure division in charge of parts design and manufacturing processes, research and development. -R&D supervision, in charge of a team of 3 responsible for test and production organization.

- FEM simulation to ensure performances criteria are met

R&D INTERN | COMPPAIR TECHNOLOGIES (RENENS, SWITZERLAND) AUGUST 2023 – FEBRUARY 2024

Producing resins and composites with CompPair products and characterizing various of their materials properties. main missions were : - contribution to composites manufacturing - contribution to composite materials analysis- contribution to support to R&D and technical activities

RESEARCH SEMESTER PROJECT | LABORATORY FOR PROCESSING OF ADVANCED COMPOSITES (EPFL, LAUSANNE, SWITZERLAND) SEPTEMBER 2022 – JANUARY 2023

Mechanical and optical characterization of self-healing composites (on CompPair’s product). Simulation FEM (impact) and modeling of healing properties as well as process optimization for material manufacturing.

EDUCATION

M.SC IN MECHANICAL ENGINEERING | EPFL - LAUSANNE

20/09/2022– 2025

Specialization in mechanics of solids and structures as well as composite materials

BACHELOR OF MECHANICAL ENGINEERING | MCGILL UNIVERSITY - MONTRÉAL

4/09/2018 – 30/04/2022

with a GPA of 3.7/4 (or 18.5/20) . Specialization in the resistance of materials, mechanics of deformable solids and solid mechanics.



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