Joseph Rizk

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EDUCATION

ETHZ – MSc Mechanical Engineering Sep 2026 – Present
- Specialising in AI and control systems.

EPFL Lausanne – BSc Mechanical Engineering Sep 2023 – 2026
- Specialising in aerodynamics, mechanical design, and control systems.
- Bachelor Project (2026): **Design and optimisation of a Formula Student rear wing**.

Collège Louise Wegmann – Baccalauréat Général 2008 – 2023
- Mention Très Bien : 17.75/20, Spécialités : Maths, Physique-Chimie.

EXPERIENCE

EPFL Racing Team – *Aerodynamics Engineer* Sep 2025 – Jul 2026
- Designed multi-element rear wing using CAD and CFD for aerodynamic optimisation.
- Collaborated with manufacturing on carbon fibre structures and load-bearing interfaces.

EPFL School of Engineering – *Student Assistant* 2023–2024, 2026
- Assisted students in electrical engineering, fluid mechanics, and supply chain courses.

UNI5 Engineering – *Engineering Intern* Jul 2022 – Aug 2022
- Contributed to telecom tower redesign under structural and cost constraints.

ENGINEERING PROJECTS

Autonomous Raspberry-Harvesting Robot – *3rd-Year Project* 2025
- Developed autonomous harvesting robot integrating mechanical design and embedded control (gripper, sensors, actuation).

System Modelling and Control – *2nd-Year Project* 2024 – 2025
- Built MATLAB/C simulation pipelines and implemented control algorithms on real systems.

CAD Design of Forest Wrench – *1st-Year Project* 2023 – 2024
- Designed mechanical tool with full CAD modelling, load analysis, and material selection.

EXTRA-CURRICULAR ACTIVITIES

ALSL – Lebanese Students Association in Lausanne – *Secretary General, Advisor* 2024 – Present
- Led communication and organisation for a 200+ member student association.

SAWA Li Lubnan – *Volunteer* 2020
- Participated in Beirut post-explosion cleanup operations.

SKILLS

- **Engineering:** Aerodynamics, CAD, control systems, embedded systems.
- **Software:** SolidWorks, CATIA, 3DX, MATLAB, Python, C, LabVIEW, ANSYS.
- **Languages:** French (native), English, Arabic.
- **Athletics:** CrossFit; endurance running (21.1–42.2 km).