# Victor Gaultier

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#### EDUCATION

### **Doctoral Candidate in Mechanical Engineering**

ETH Zürich - Swiss Federal Institute of Technology

### Master of Science in Mechanical Engineering, GPA: 5.29/6

ETH Zürich - Swiss Federal Institute of Technology

Core courses: Manufacturing of Polymer Composites, Mechanics of Composite Materials, Metal Additive Manufacturing -Mechanical Integrity and Numerical Analysis, Aircraft Structures, Adaptive Materials for Structural Applications, Orthopaedic Biomechanics

Bachelor of Science in Mechanical Engineering, GPA: 4.95/6 EPFL - Swiss Federal Institute of Technology

Core courses: Mechanical Design Principles, Solid Mechanics, Material Sciences

Baccalauréat, GPA: 16.02/20 Lycée Ste Famille, ESCR

Scientific option with mathematical speciality

### Work Experience

#### CMAS Lab Sept. 2021 – Feb. 2024 Focus project supervisor Zürich, Switzerland • Supervision of the HCR3D Focusproject, aiming to develop a 3D printing machine for hybrid bi-component fibres. Alpina Burkard Bovensiepen GmbH & Co. KG Sept. 2020 – Feb. 2021 Vehicle Dynamics Mechanical Engineer Intern Buchloe, Germany • Improved ALPINA B7 and B4 chassis's stiffness and suspension kinematics to improve the cornering stability. • Designed ALPINA B4 lightweight aluminium rims.

#### Kart Republic

Mechanic and on-track engineer Valencia, Spain • Prepared go-karts and supervised on-track testing at the European Winter Cup Go-Kart championship. EPFL - Swiss Federal Institute of Technology Sept. 2017 – July 2019 Teaching Assistant Lausanne, Switzerland

• Prepared and led exercise sessions in General Chemistry, Material Sciences, Structural Mechanics, Continuum Mechanics.

## Engineering Projects

### CMAS Lab

- Project name: "Design and Fabrication of a Periodic Cellular Sandwich Core Made via Local Welding and Reshaping of Thin-Ply Thermoplastic Composites"
- Studied the potential of welding and reshaping thermoplastic-based composites

### Akademischer Motorsportverein Zürich (AMZ) Racing

- Designed and manufactured carbon rims and wheel hubs for a Formula Student race car: reduced rim's weight by 15% and wheel hub's weigh by 23% compared to previous versions.
- Responsible to present the chassis design at the FS Switzerland event.
- Track record of the car : 1st place FS East 2021, 2nd place FS Austria 2021

### CMAS Lab

Feb. 2020 - Sept. 2020• Project name: "Manufacturing of one-piece one-cure carbon rims through the combination of CFRP and AM"

• Developed a novel manufacturing method to reduce the manufacturing cost and complexity of carbon rims.

### "Want to stay healthy" project

• Developed an IOS application to track macro-nutrients eaten in a day.

### EPFL Racing Team

Sept. 2018 - Sept. 2019 • Designed and assembled the steering system for a Formula Student race car, as part of the undergraduate final project

### Skills

Softwares: Abaqus; Catia V5; NX 12; Solidworks ; ANSYS; MATLAB/Simulink; COMSOL, Repetier HOST. Languages: French (Native), English (Proficient), German (Proficient). Sports: Powerlifting, Tennis. Sports achievements: Current Swiss national record holder and 2021 champion in powerlifting, -59 kg category: Squat,

Bench-press, Deadlift and overall.

Engineering skills: Composite materials manufacturing, Composite design, Lightweight design, Teamwork, Vehicle Dynamics optimisation, Finite Element Analysis.

Zürich, Switzerland

Sept. 2021 -

Sept. 2019 - Sept. 2021 Zürich, Switzerland

Sept. 2016 - Aug. 2019 Lausanne, Switzerland

Sept. 2013 – Aug. 2016 La Roche-sur-Foron, France

Feb. 2021 – Ongoing

Sept. 2019 - Aug. 2020

Jan. 2020 – April 2020

April 2018