



# Victor Garnier

## MECHANICAL ENGINEER

### CONTACT

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## PROFILE

Mechanical Engineer with 2 years of industry experience in the design and optimization of aircraft refueling systems. Strong background in fluid dynamics, mechanical design, and system troubleshooting, with experience improving complex mechanical assemblies. Currently pursuing a Master's degree in Mechanical Engineering to further develop advanced analytical and research capabilities.

## SKILLS

### Engineering:

- Mechanical Design, Fluid Dynamics (CFD), FEA Analysis, Machine Design, Hydraulics.

### Software:

- SolidWorks/3D experience, Python

### Hardware and Prototyping:

- 3D printing, Arduino/Raspberry Pi

### Languages:

- French: Native, English: Fluent

### Certification:

- NCEES-Fundamental of Engineering Exam (FE)

## INTERESTS

3D printing, Raspberry Pi, Soccer, Snowboarding, Music.

## EDUCATION

HES-SO Master, Lausanne, Switzerland

2025-Present

Mechanical Engineering Master

California State Polytechnic University, Pomona, USA

2018-2023

Mechanical Engineering Bachelor's

GPA:3.58

## WORK EXPERIENCE

### Griswold Industries DBA CLA-VAL

2023-2025

Design Engineer I

- Designed and optimized components for aircraft refueling systems, including nozzles, inline valves, and couplers.
- Collaborated with engineering management and sales teams to develop new products and improve existing designs based on customer requirements.
- Developed and executed testing procedures for mechanical devices to ensure performance and compliance with industry standards.
- Designed custom testing fixtures to streamline product validation and improve testing efficiency.
- Applied fluid dynamics and mechanical design principles to improve component performance and reliability.
- Performed structural analysis using SolidWorks and finite element analysis (FEA) to evaluate component durability under various loading conditions.

### CLA-VAL Summer Internship

June 2022 - August 2022

Engineering Lab Tech Asst - Intern

- Collaborated with product engineering and sales teams to design six mechanical assemblies using SolidWorks according to client specifications.
- Contributed to the full product development cycle, from initial concept to final implementation.
- Designed structural brackets for the new 353GF coupler generation.
- Assisted in on-site installation and troubleshooting of industrial valves.

### Safaran Boutique

2022-2023

Co-Founder of Safaran Boutique

- Co-founded a retail business with two partners.
- Managed operational and strategic aspects of the business, including sourcing, logistics, and sales.
- Developed problem-solving and management skills through real-world business challenges.

## RELEVANT PROJECTS

### NGCP Project - Bachelor's Project

2022-2023

Payload Team Member

- Designed and manufactured a payload system for an Unmanned Ground Vehicle (UGV).
- Used SolidWorks, MATLAB, FEMAP, and 3D printing technologies during development.
- Collaborated with a multidisciplinary team to integrate the payload system into the vehicle.
- Presented project progress and results during team meetings and technical reviews.

### Lock Mechanism

July 2021 - August 2021

Personal Project

- Designed and built a custom door lock mechanism using Arduino and 3D-printed components.
- Developed Arduino programs to control system functionality.
- Gained practical experience in embedded systems and rapid prototyping.