
Summary

Undergraduate mechanical engineering student at the Swiss Institute of Technology (EPFL) and University of Illinois. I am pursuing passion in engineering through both academic and personal projects. Highly motivated to engage, contribute, and learn from professionals.

Education

- Swiss Federal Institute of Technology (EPFL), Lausanne** 2021 — Expected 2024
- Pursuing Bachelor of Science in Mechanical Engineering, top 5% of class
 - Programming Project Spring 2023
 - Computer vision pool game score & winner program, using Matlab, C, LabView
 - Engineering 3D CAD project Spring 2022
 - 5 month 3D CAD project with CATIA V5 - industrial vegetable peeler for volume production
 - Engineering Department Mentor: help new students integrate and adapt to new environment & workload
 - Led the student's independent debate club as president. Managed and led finances, debate events.
- University of Illinois at Urbana Champaign, Urbana Champaign, USA** August 2023 — May 2024
- Exchange year with EPFL
 - Student engineering advisor to the Liquid Propulsion club at Urbana Champaign
- Lycée Ferdinand Foch, Rodez, France** Graduated 2021
- French Baccalaureate, first in 2021 class (valedictorian equivalent) with High Honors (4.0 GPA)
 - Aeronautics and introduction to flight dynamics certificate, High Honors
- Lincoln Sudbury Regional High-School, Sudbury Massachusetts, USA** 2018 — 2019
- Participated in the creation of the Aerospace Club. Scratch-built light, fixed wing RC aircraft.

Relevant Experience

- Lead Student Engineer, EPFL Rocket Team** 2021 — Present
- Brought 4 projects from blank sheet to implementation, via design, prototyping, testing and validation
 - Worked extensively with 3D CAD (CATIA and Solidworks), GD&T drawings, additive manufacturing, machining, soldering, materials selection, mass-sensitive design
 - Led a team of 12 engineers with different backgrounds and specializations to successfully build and launch a rocket carrying a small payload on time and under budget
 - Spearheaded effort to develop 1.7 kN liquid fueled, pressure-fed, cooled engine using LOx and ethanol as student Liquid Propulsion Engineer; ensuring safety standards, quality communication between teams, and results-oriented efforts. Managing hardware purchasing, Rocket Team-Safety Office relations
 - Managed training, hardware design, production, testing, and implementation of all cryo-related systems
 - Established high-quality sponsor for the Rocket Team resulting in \$10,000 budget surplus
 - Cut plumbing cost by 80% by modifying valves in house rather than purchasing COTS Cryogenic valves.
- Design, Manufacturing and Operations intern, Validex** August — September 2022
- Designed (using Solidworks CAD), fabricated, machined, and installed motorized conveyor belt segments
 - Translated technical documents for customer and partner cooperation across borders
 - Assisted in supplier relations and establishing new customers
 - Suggested and detailed minimal cost business and product expansion opportunities
- Teaching Assistant, Mechanical Physics** March — July 2023
- Taught and communicated complex physics concepts to first and second year engineering students
 - Led groups of 30 through course content, problem sets in French, English

Key Skills

- Translate and teach French (fluent), English (fluent) and Spanish (limited working proficiency)
- Project management, team coordination, research and analysis, white sheet to implementation pipeline
- Testing, prototyping, design, CAD, fabrication, composites, machining, 3D printing, soldering
- Proficient in Catia, Solidworks, AutoCAD, OpenFoam, OpenRocket, XFOIL, Solidworks CFD, ABAQUS
- Excel, Word, Powerpoint, C, SQL, Python, CSS, HTML, Matlab, LabView
- Student private pilot with 23 hours of flight time