Francesco Ferri

[redacted] | LinkedIn | [redacted]

Mechanical Engineering Student

Technical Skills

Mechanical

- F360, SolidWorks used to design projects involving FDM, GD&T and CNC machining
- DFM/DFA principles in F360 to decrease prototyping time and resources.
- SolidWorks CFD
- Composite materials and woodworking

Electronics & Software

- C++ with sensor peripherals and user interfaces
- Arduino and PLCs for motion control of pneumatic and servo motor systems
- Linux/Bash/Raspberry Pi
- Soldering/Breadboard Assembly

Projects

Online Portfolio 2022

A personal website to share my learnings and projects. Direct: www.fcferri.com

Paper Loader 2021

Loading sheets of cardboard into industrial printers using pneumatics, servo motors and sensors while providing intuitive user experience to operators

Wood Storage Rack 2021

A storage solution for home, office and mobile applications built using plywood

Education

University of British Columbia
Bachelor of Applied Science
Mechanical Engineering Major
Set 2019 - April 2024
[redacted]

Experience

UBC Sailbot | Wingsail Team Member | UBC Vancouver
January 2022 – Present

- Researched wingsail design for new vessel under development, used SolidWorks CFD and Ansys to develop models and iterate design
- Evaluated wingsail design form a mathematical modeling perspective investigating weight, lift, drag and shape to find the best optimization path; used parametric equations and Matlab model

Study-Build | Mechanical Intern | Campbell River, BC
May 2021 – Dec 2021

- Developed paper loading machine to streamline production of thermally performant cardboard boxes, reducing use of EPS packaging in seafood industry while keeping production costs low
- Applied DFM principles to design gantry structure of paper loading machine, decreasing manufacturing costs during CNC machining and 3D printing
- Developed an interactive BOM in excel, tracking the manufacturing and procurement of parts, to deliver the paper loader prototype on time and within budget.
- Collaborated with team to build a system in excel to track status of projects based on tasks and weekly sprints; increased productivity and more goals achieved per week
- Led development of software for paper loading machine with C++ and Arduino platform by following value and KPI based approach; decreased loading time and increased safety of loading machine

UbreakIfix | Electronics Repair Technician | Kelowna, BC
May 2020 – August 2020

- Collaborated with a team of 5 technicians to design flowcharts tailored to manufacturer's specific repair procedures, reducing repair times and human error, adding to training tools for new staff.
- Managed daily repair cues using CMMS software to deliver reliable repairs on time, ensuring customer satisfaction with average repair time of 2 hours

Sailing School | Sailing Instructor | Sestri Levante, Italy
May 2015 – August 2019 *summer position*

- Performed maintenance on Lasers using composite materials for structural components, refurbishing school's fleet; implemented quality control measures and cost analysis to determine repair approach