CRISTIANO FREITAS

MECHANICAL ENGINEER

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SKILLS

CAD

- **SOLIDWORKS** used on various projects involving **Geometric Dimensioning** & **Tolerancing** and **sheet metal design.**
- **LibreCAD** and **SolidWorks Drawings** used to draft 2D engineering drawings.

CAE

- **ANSYS Workbench –** Finite Element Analysis **(FEA)**, Computational Fluid Dynamics **(CFD).**

MECHANICAL

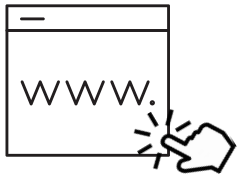
- Developed and improved 3D models using **Design for Manufacturing/Assembly (DFM/DFA) principles.**
- **Conducted tolerancing analysis** and **functional dimensioning** on assemblies.
- Applied **Root Cause Analysis tools** like **Pareto Chart**, **Ishikawa**, **TRIZ** methodology**, FMEA** analysis and **GUT matrix to address design and management issues.**

ADDITIONAL SOFTWARE

- OCTAVE, Python, Latex, Excel, SAP, Automation Studio.

PROJECTS

- For detailed descriptions of my personal projects, please refer to my portfolio



SOFT SKILLS

- Project Management
- Problem-Solving
- Communication
- Adaptability
- Team Work
- Creativity

LANGUAGES

- PORTUGUESE - NATIVE
- ENGLISH - C1

EDUCATION

NOVA School of Science and Technology, Lisbon, Portugal

MSc in Mechanical Engineering

Sep 2019 - Sep 2024

- Final Grade: 15/20 | 75% GPA

EXPERIENCE

Junior Ship Repair Manager | Lisnave Estaleiros Navais | Setúbal, PT

Oct 2024 - Present

- Assisted in the **planning** and **execution** of **ship repair** and **maintenance operations**, ensuring timely delivery and quality standards.
- Led and **coordinated** cross-functional teams to **optimize** workflow efficiency and adherence to project timelines.
- Acted as a **key liaison** between shipowners, shipyards, contractors, and regulatory authorities to facilitate seamless communication.
- **Identified** and **resolved** technical and logistical challenges, **implementing** effective solutions to **enhance** operational performance.

Analysis and Mitigation of Hydraulic Transients in Steelmaking Equipment | Master Thesis at Megasa S.A | Seixal, PT

Jan - Sep 2024

- **Conducted** analysis of recurrent **oil leaks** in pipelines resulting in an **annual loss of €300k.**
- Utilized **Automation Studio** to **simulate** hydraulic circuit behavior, enhancing understanding and troubleshooting capabilities.
- **Sized** and implemented a **piston-type pressure accumulator** to **mitigate** hydraulic transients, enhancing system stability and reducing maintenance costs.

Nova SST | Researcher | Lisbon, PT

Feb - Apr 2022

- **Simulated** the Atmospheric Boundary Layer (ABL) in a wind tunnel using passive aerodynamic roughness.
- **Measured** pressure coefficients (Cp) on a cubic model at 0° and 30° wind angles.
- **Analyzed** velocity and Cp data in Excel, applying Power Law and Logarithmic fits.
- **Simulated a type 4 terrain** (Davenport classification) using passive elements to generate aerodynamic roughness in a wind tunnel, **achieving realistic ABL profiles.**
- **Gained** hands-on lab **autonomy** and **advanced experimental skills**.

INTERESTS

- Four years of MMA training, leading to the acquisition of heightened **discipline**, resilience, **focus**, **confidence**, **self-defense skills** and **sportsmanship**.
- **Experienced swimmer** with 7 years of proficiency.
- Experience in **competing** at kayak polo tournaments as a **former captain**, showcasing **leadership skills**.
- Currently training **Brazilian Jiu Jitsu.**