

# 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

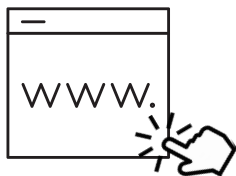
- Developed and improved 3D models using **Design for Manufacturing/Assembly (DFM/DFA)** principles.
- Conducted **tolerancing analysis** and **functional dimensioning** on assemblies.
- Applied **Root Cause Analysis** tools like **Pareto Chart**, **Ishikawa**, **TRIZ** methodology, **FMEA** analysis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