Fernando Oleo Blanco

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Experience - Education

Industrial engineering and *Maschinenwessen* (mechanical engineering)

Double Master *2019—*

Mechanical engineering in Technische Universität München and industrial engineering in Comillas ICAI University.

Bachellor *2015–2019*

Industrial engineering in Comillas ICAI University, specialised in mechanics.

Research, internships, projects and courses

Max-Planck-Institut für Plasmaphysik *2021*

Department of plasma components. *Impact of heat treatment on the mechanical properties of W-3.5Ni-1.5Cu heavy alloy.*

ICAI *2019–2020*

Department of mechanical engineering, EUROFUSION grant. *Turbomachinery design and analysis for S-CO_2 power cycles (DEMOnstration project).*

Concepts NREC *June 2020*

Turbomachinery design workshop.

CIEMAT *2018–2019*

Department of Nuclear Security. Bachelor's final project: *The challenge of rewetting dry-stored spent nuclear fuel: numerical simulation.*

ICAI *2017–2018*

Department of applied mathematics: create teaching material for the programming language R and it's use in statistical analysis.

Self-proposed

Technical talks *2017—*

Diverse talks given at FOSDEM, ICAI and Youtube regarding a variety of topics: LaTeX 2ε, Linux, FEA simulation and Raspberry Pi.

Languages

Spanish: Mother-tongue

English: CEFR C1

German: CEFR B2

Professional skills

- Engineering
  - Mechanical

        - **Instruments/Machines:** Tensile tests, electron microscope, general machining tools.
        - **CAD:** Solid Edge, SolidWorks, AutoCAD, Creo, Salome.
        - **CAE:** COMPAL, AXIAL.
        - **Simulation:** OpenFOAM, ParaView, FRAPTRAN. *In progress*: Code_{Aster, Saturne}, OpenTURNS.
    - Others
        - **Mathematical software:** Maxima, Matlab. *In progress:* Scilab.
        - **System design/analysis:** Simulink. *In progress: Open*Modelica.
        - **Operational research:** GAMS.
- Programming languages
    - **Extensively used:** C (embedded systems), FORTRAN IV/66, Matlab, R, Shell.
    - **In progress:** Fortran 08, Ada/Spark, LISP, Python 3, Assembly (RISC-V and x86_64).
- General skills
    - **Linux:** used as primary OS. I am involved with a few libre projects.
    - **Tools:** LaTeX 2ε, Git, Emacs/Vi(s), Virtualization, pkgsrc, etc.
    - **Personal webpage:** running on FreeBSD.

Personal information and extracurricular activities

Volunteer Experience

COSOCIAL **Madrid**

2012–2014, 2017–2019

Provide help to kids with high risk of social exclusion by teaching them maths, Spanish, English, values and PE/sports.

Interests

- **Piano**

Studied it since I was 6 years old up until 13. I started playing it back when I was 21.

- **Writing, reading and typography**

Documentation, essays and fiction.

- **2D and 3D Artwork**

Since I was twelve years old I have been learning 3D animation and more recently 2D artwork, such as pixelart. Main software used: Blender, Krita, GIMP and OpenToonz.

- **Learning**

I like researching various topics during my spare time: mathematics, programming languages, art, electronics, HPC, FEA, languages, etc.

- **Physical exercise**

Diving: *Open Water* licensee. Cycling. Swimming. Table tennis. Light physical exercise.