

Pedro Juan Royo

CURRICULUM VITAE

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A hardworking university student of the materials science and engineering course that is willing to tackle a challenge. **Skilled in programming in different languages**, especially wanting to work on **computational materials science** and applying artificial intelligence techniques on materials research.

EXPERIENCE

THE UNIVERSITY OF SHEFFIELD, DEPARTMENT OF MATERIALS SCIENCE & ENGINEERING

Sheffield, UK

Intern

June 2020 - July 2020

- Studied the impedance response of BaTiO₃ under different conditions using **COMSOL**. Found interesting relation between the aspect ratio of the grains of the material with its impedance response.
- Developed **MATLAB** code to analyse the results and create visualisations.
- This work was presented at the **WorldCUR-BCUR 2023 Conference** in the University of Warwick.

INSTITUT CATALÀ DE NANOCIÈNCIA I NANOTECNOLOGIA (ICN2)

Barcelona, Catalonia

Intern

July 2019 - August 2019

- Created **core-shell silica-polystyrene nanoparticles** to study the effects of nano-plastics on living tissue.
- Learned how to **independently work on a lab**.

SKILLS

- **Languages:** Catalan (Native), Spanish (Native), English (Professional working skills), French (Speaking and writing skills), Japanese (Elementary).
- **Tools:** Ansys, Solid Edge, Git, LaTeX, COMSOL, Jupyter Notebook, Graphpad Prism 9, Typst, PostgreSQL.
- **Coding:** Python, MATLAB, C++, C, V.

EDUCATION

- **MEng Materials Science and Engineering (Research stream)** / The University of Sheffield / 2020 - 2024

ACHIEVEMENTS

SHEFFIELD METALLURGICAL AND ENGINEERING ASSOCIATION HAT-

Sheffield, UK

FIELD MEMORIAL PRIZE IN METALLURGY Prize August 2022

- Prize awarded once annually for the best examination performance by a second-year undergraduate studying for a Bachelor or Master of Engineering degree in either Metal or Materials Science and Engineering.

SIR HAROLD WEST AWARD Prize July 2021

Sheffield, UK

- Given due to **personal and academic performance during level 1 of the Materials Science and Engineering degree** in The University of Sheffield. Awarded to only 8 students of the Engineering department.

CiMs-CELLEX Scholarship May 2018

Barcelona, Catalonia

- Obtained one of the 24 positions of the competitive CiMs-Cellex scholarship to course International Baccalaureate in Aula Escola Europea.

HP CODEWARS SANT CUGAT Competition 2017

Sant Cugat, Catalonia

- **Ranked 1st** in a coding competition organised by HP.

PROJECTS

PERSONAL WEBSITE Self-motivated September 2023

- Coded a **small personal website in python using fastapi, jinja2 templates and CSS**. Hosted using Deta Space. Access it here: <https://pedro-juan-royo.com>.

HOUSE STYLE FILE FOR LATEX Self-motivated March 2022

- **Made a style file to be used in LaTeX** to format documents in accordance to the guidelines of the Materials Science department in University of Sheffield.