

Pedro Juan Royo

☎ (+44) 0774 7807041 | ☎ (+34) 654 543 377 | ✉ pedro.juan.royo@gmail.com | 🏠 Joan Miró 7, 1r 2a, 08005, Barcelona, Spain | 🔗 GitHub: Parzival1918 | 🔗 LinkedIn | 🔗 Personal website |

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.

🔗 Education

2020 **The University of Sheffield**, *MEng Materials Science and Engineering (Research stream)*
↓ Studying materials science in the University of Sheffield with the Research specialization they offer. Here I have developed a deep understanding of the science behind the mechanisms we have in order to engineer the materials we use in our daily life.
2024

2005 **Aula Escola Europea**, *Primary and Secondary education, International Baccalaureate (IB) and Spanish bachillerato*
↓
2020

🔗 Qualifications & Certificates

2022 **Materials Science and Engineering (MEng) Level 2**, Average: 83.
2021 **Materials Science and Engineering (MEng) Level 1**, Average: 84.
2020 **International Baccalaureate**: Catalan HL: 7, Physics HL: 7, Mathematics HL: 5, Chemistry SL: 7, English SL: 7, Philosophy SL: 4, All these scores were calculated by an algorithm (due to covid pandemic).
2018 **First Certificate Exam of Cambridge University**, Score: 174/190.
2018 **Diplôme d'études en langue française**, Score: 8.4/10.

🔗 Experience

Jun 2020 **Intern**. THE UNIVERSITY OF SHEFFIELD, DEPARTMENT OF MATERIALS SCIENCE & ENGINEERING, Functional Materials Group
↓
Jul 2020 Worked with Julian Dean and Derek Sinclair to analyse the impedance response of BaTiO₃ under different conditions. Also developed an impedance analysis software with MATLAB. This work was accepted at the **WorldCUR-BCUR 2023 Conference**.

- Developed group work skills.
- Learned how to use COMSOL, and further developed my MATLAB skills.

Jul 2019 **Intern**. INSTITUT CATALÀ DE NANOCIÈNCIA I NANOTECNOLOGIA (ICN2)
↓
Aug 2019 Helped the group lead by Víctor Puentes **develop core-shell silica-polystyrene nanoparticles** to study the impact of nano-plastics on living systems.

- Developed group work skills.
- Learned how to work independently in a lab.

🔗 Projects

Aug 2022 **Personal Website**, *Self-motivated*

- Coded a small personal website using HTML and CSS. Hosted using GitHub Pages.
- Access it here: <https://parzival1918.github.io/PersonalWebsite/>.

Mar 2022 **House Style file for LATEX**, *Self-motivated*

- **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.

Aug 2021 CV in Unity, *Self-motivated*

- CV coded in game engine Unity.

Jun 2021 Crystal Viewer, *Self-motivated*

- MATLAB application to visualise unit cells and atomic positions of crystals.
- Also able to visualise miller directions and planes.

🔗 Achievements

Aug 2022 Sheffield Metallurgical and Engineering Association Hatfield Memorial Prize in Metallurgy, *Award*

- This prize is **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.

Jun 2021 Sir Harold West Award, *Award*

- 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.

Jun 2021 Joe Hemmant Award, *Award*

- Award given to two first year students of the Materials Science department in the University of Sheffield.
- **Based on entry grades and performance in first semester of university.**

May 2018 CiMs-Cellex, *Scholarship*

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

2017 HP Codewars Sant Cugat, *Competition*

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

🔗 Skills

Languages Catalan (Native), Spanish (Native), English (Speaking and writing skills), French (Speaking and writing skills), Japanese (Learning).

Utilities Ansys, Solid Edge, Git, LATEX, COMSOL, Jupyter Notebook, Graphpad Prism 9, Typst.

Programming Python, MATLAB, C++, C.

Extra First Aid (Spanish certification).

🔗 Relevant Courses

Online MATLAB Onramp, MATLAB Machine Learning Onramp, MATLAB Deep Learning Onramp, Practical Deep Learning for Coders.

🔗 Extra curricular

Musical Production, *Course*

Interested in musical production. Did an introductory course in Ableton Live 10 and I also play the piano.

Private Lessons, *Work*

Did private lessons in Maths and Physics to a 16-17 years old student at Aula Escola Europea.