

Antonio Doral Rodríguez

Mobile: +44 07440358446 | Email: a.doral.rodriguez@gmail.com | [linkedin.com/in/antoniadoral/](https://www.linkedin.com/in/antoniadoral/) | doral.uk

Driven Aerospace Engineer with practical experience in design, aerodynamics, testing and systems engineering. Eager to learn and contribute to a challenging role within a high-performance, fast-paced environment leveraging my Aerospace background.

EDUCATION

Oxford Brookes University, MSc Motorsport Engineering

2025

Specialisation in Aerodynamics

Grade: Distinction

- Applied engineering expertise into specialised motorsport applications.

Polytechnic University of Madrid, MSc Industrial Mathematics

2024

Specialisation in Numerical Simulation.

Grade: First-Class Honours

- Advanced applied mathematics with industrial applications focused on numerical simulation techniques for complex systems, optimisation and computational modelling.

King Juan Carlos University of Madrid, Aerospace Engineering Degree

2022

Specialisation in Aerospace Vehicle design.

Grade: First-Class Honours

- Strong expertise across a wide range of engineering disciplines, including physics and mathematics with a specialised focus on aerodynamics, structural mechanics, flight mechanics and vehicle performance analysis.

Polytechnic University of Milano, Aerospace Engineering degree

2020

European mobility program

- Studied the third course of aerospace engineering. Focused on aerodynamics and structural mechanics.

Kimball Union Academy. NH, USA

2015

10th grade (2nd high-school year)

- Studying my second year of high school in the USA as a student from Spain showcased my boldness and adaptability to new environments since a young age.

EXPERIENCE

Oxford Brookes Racing

Oxford, UK

Fluid dynamics and vehicle dynamics

Sep 2024 - May 2025

- As an aerodynamicist, I have designed several iterations of the front wing for the 2025 car, including CFD analysis and optimisation. Developed and executed CFD thermal simulations of the front motor cooling system.

Indra Sistemas, S.A.

Madrid, Spain

Aeronautical Systems Engineer

Oct, 2023 - June, 2024

- I took part in the development of a remote air space control tower ensuring functionality and reliability. Designed and conducted factory and On-Site testing and certification gaining valuable testing and hands-on practice in a high-pressure, high requisites environment.

FI Group

Madrid, Spain

Engineering Consultant

May, 2022 - April, 2023; July, 2023 - Aug, 2025 as Freelance

- Applied time and project management. Proficiency at technical report writing and effective communication with clients and engineers. I worked with a variety of client companies, gaining insights into their project management methodologies.

TECHNICAL SKILLS

Mathematics: Deep understanding of advanced mathematics involved in numerical simulation and modelling gained through my studies in industrial mathematics, including numerical methods, dynamic systems and optimisation.

Aerodynamics: Extensive academic experience in the analysis of subsonic and supersonic aerodynamic phenomena and aerodynamic devices design. Specialisation in computational modelling and simulation techniques with traditional CFD and Lattice Boltzmann methods as well as wind tunnel and practical testing.

Surface Design: Through my expertise in 3DExperience Catia, I have developed a professional CAD design methodology with a clear structure that facilitates collaboration and resilient design. My skills allow me to complete high-quality designs following Class-A surfacing standards in complex aerodynamic geometries (G2-G3 continuity) complementing my aerodynamic knowledge.

Software:

- **CFD:** ANSYS Fluent, Star CCM+, OpenLB, OpenFoam.
- **FEA:** Patran/Nastran, Marc/Mentat, LSDyna.
- **CAD:** 3DExperience, Catia, Solidworks, Siemens NX.
- **Programming:** MATLAB, C++.

SOFT SKILLS

Precise Technical Communication: Proficient in delivering impactful presentations and facilitating productive interactions between clients and technical teams developed through my role as a systems engineer ensuring alignment with project goals and efficient problem-solving.

Team player: Through my experiences in rugby and in both academic and professional settings, I have come to understand the true power of teamwork. Rugby taught me that the collective effort of the team achieves far greater success than the sum of individual contributions. Every project I have participated in had as a priority to facilitate teamwork and collaboration.

Multi-Disciplinary problem-solving: Demonstrated ability to master new technical concepts to solve complex, multi-disciplinary engineering challenges and adapt to diverse environments, consistently performing at a high level, tackling unfamiliar problems with a creative and proactive approach.

High-Pressure Adaptability: Proactive and adaptable in fast-paced, deadline-driven environments, with the agility to respond to unexpected challenges with a methodical approach.

Languages: Native in Spanish. Proficient in English (C2). Beginner level Italian (B1).

PROJECTS

Motorsport Master's Final Thesis

Oxford Brookes University

2025

Grade: Distinction (76%)

- Developed a LES unsteady aerodynamic CDF simulation using novel Open-Source Lattice Boltzmann Methods and developed a workflow with aims to implementing the method to fluid-structure phenomena enabling efficient aeroelasticity simulations.

Mathematics Master's Final Thesis

Polytechnic University of Madrid and Etulos Solute S.L.

2024

Grade: First-Class Honours (90%)

- Developed an advanced optimal control system through a Non-Linear Model Predictive Controller in MATLAB and C++ for the control of an autonomous quadcopter used in the inspection of wind turbines.

Aerospace Bachelor's Final Thesis

King Juan Carlos University of Madrid

2023

Grade: First-Class Honours (85%)

- Designed a non-invasive vibrational and aeroelastic test methodology for aerodynamic components (Focused on a helicopter's tail rotor blade) using high-speed cameras and image recognition.

2026 F1 Design

Personal Project

2026

- I analysed the F1 2026 technical regulations (Issue 14) and designed the reference volumes and surfaces. Designed a concept of the front wing in Dassault Systèmes 3DExperience following rigorous CAD methodology ensuring legality and high surface quality. I applied my aerodynamic knowledge to design the wing for a desired flowfield. Project Available at my website. doral.uk

INTERESTS AND ADDITIONAL INFORMATION

I am passionate about Karting, Formula One, Aviation, Space Exploration and Aerodynamics. Active in rugby, boxing and endurance sports (marathon runner).