

ROBERTO MARTINEZ DE LA CRUZ

Aerospace Engineer

5+ years of experience in aerodynamics, flight dynamics and data analysis. Optimization of aerodynamics performance and handling qualities for commercial aircraft, UAVs and race cars through low fidelity methods, CFD simulations, flight and wind tunnel testing.

Good communicator, team player, versatile.

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Lausanne, Switzerland

[robertomzc](#)

EDUCATION

UC Berkeley

MSc Thesis | 2018 – 2019

JFM Publication: *'Water impact on underside of horizontal hydrophobic plate'*. [↗](#)

TU Delft

MSc Aerospace | 2016 – 2019

Aerodynamics specialization.
8,85/10. Top 3%

UPM (Madrid)

BSc Aerospace | 2012 – 2016

8,17/10. Top 5%

AWARDS

Justus & Louise van Effe
Research Grant
TU Delft | 2018

Prof. van der Maas Fund
TU Delft | 2018

Excellence Scholarship
UCM (Madrid) | 2013

LANGUAGES

Spanish: Native

English: C2

French: B2

German: A2

EXPERIENCE

Aerodynamics Engineer | senseFly

Switzerland | Oct 2019 - Present

Design and analysis of fixed wing drone aerodynamics and flight dynamics. eBee VISION.

Development of necessary tools missing at arrival. Numerical and experimental methods required developed:

- Drone Design Framework
- Automatic CFD Tool
- Wind tunnel testing
- Flight test protocol, prototype and data analysis

Teaching Assistant | TU Delft

Netherlands | Apr - Jun 2018

Teaching Assistant in two 2nd year courses of the Aerospace Bachelor's degree at TU Delft:

- Computational Modelling
- Simulation, Verification and Validation

Aerodynamics Intern | Renault Formula 1 Team

United Kingdom | Jan - Jul 2017

Particle Image Velocimetry (PIV) system calibration, synchronization and post processing at Enstone wind tunnel. Automated and improved speed by 5 (parallelization) on the postprocessing algorithms.

Aeroelasticity Intern | AIRBUS

Spain | Mar - Jun 2016

Horizontal and Vertical, Tail Plane (HTP & VTP) loads calculation during transport. Loads and Aeroelasticity Department.

STACK



Python



MATLAB



OpenFOAM



ANSYS



STAR CMM+



ParaView



SolidWorks

COMPLEMENTARY

Formula Student/SAE UPM Racing | UPM (Madrid)

Spain | 2014 - 2016

Team member (2014) and Team Leader (2015) of the Aerodynamics & Frame division.

English Teacher | Ndulu English Project

Indonesia | Nov 2017