



AEROSPACE ENGINEER

ORIOl BRASCÓ

CONTACT

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I am an engineer with working experience, eager to expand my knowledge and professional skills. I adapt to new challenges and work requirements through continuous self-learning. I consider myself a committed, responsible and curious person.

SPECIALIZATION

EXPERIENCE IN

- Python
- C++, C#, C
- Django, ReactJS
- MongoDB, SQL
- CAD, CFD, CFX

ENGINEERING TOOLS

- Matlab, Octave
- OpenFoam
- Solid Works, Ansys, Qblade
- LaTeX, Office

LANGUAGES

- Catalan: Native
- Spanish: Native
- English: First Certificate
- German: Goethe A1 Deutsch Certificate

WORKING EXPERIENCE

DATA ANALYST & ANALYTICS ENGINEER

GE Renewable Energy, AGAP2 | July 2022 – Ongoing

- Design and develop bespoke analytics to monitor wind turbines performance around the globe.
- Continuous improvement and detection of possible new features for the existing analytics.

PROJECT MANAGER & DATA ANALYST

DENN, Industries Puigjaner | March 2020 – July 2022

- Design and develop applications capable of predicting trajectories, maintenance and status of machinery elements, given real-time and historical data.
- Design and develop bespoke applications to improve the customer's interaction with products.

FULL STACK DEVELOPER & I+D

APPlus IDIADA | April 2019–March 2020

- Design and develop applications for post-processing of data acquired in automotive tests.
- Implementation of a real-time algorithm to automatically detect events during automotive tests.

BACK-END DEVELOPER & I+D

Quiside Industries S.L | June 2018–November 2018

- Refactorization and integration of a code interacting with a FPGA dispositive.
- Implementation of Monte Carlo stochastic method in fluid dynamics and in finances

EDUCATION

MSc in Computational and Mathematical Engineering

Universitat Oberta de Catalunya & Universitat Rovira i Virgili, (UOC & URV)

October 2020–ongoing

Aerospace Systems Engineering

Universitat Politècnica de Catalunya, Escola d'Enginyeria de Telecomunicació i Aeroespacial de Castelldefels, (EETAC)

Graduation June 2019

Bachelor's thesis: Water Tunnel Study, Design and Commissioning

IN-DEPTH PROFESSIONAL SUMMARY

DATA ANALYST & ANALYTICS ENGINEER

GE Renewable, AGAP2 | July 2022 – Ongoing

– Lead the development of analytics capable of predicting possible failures, maintenance dates, misalignments and other turbine points of failure, introducing innovative techniques where possible.

– Lead a continuous improvement monitoring for detection of possible defects or development of new features for the existing analytics, implementing an analytics lifecycle capable to adapt to a changing world.

– Skills used: Interdisciplinary group management, Python, SQL, Azure

PROJECT MANAGER & DATA ANALYST

DENN, Industries Puigjaner | March 2020 – July 2022

– Lead the innovation and development of applications capable of predicting trajectories, maintenance and status of machinery elements, given real-time and historical data obtained with a cloud of sensors including pressure, force, velocity and temperature. This was the starting point for the creation of machine learning algorithms to predict the quality of the final product.

– The framework developed for the real-time and historical data processing led to the design and development of bespoke applications to improve the customer's interaction with products, such as automatically generated bi-annual detailed reports containing information that span from energetical consumption to machine wear and expected maintenance.

– Skills used: Project management, Interdisciplinary group management, Python, MongoDB, ReactJS, HDF5

FULL STACK DEVELOPER & I+D

APPlus IDIADA | April 2019–March 2020

– In order to improve the interaction and the post-processing of the data obtained during different tests, a software application was designed for internal use to plot, extract and modify the data. This application is capable of processing large chunks of data (up to 60 GBytes per file) and to speed-up the post-processing, allowing the engineers in charge to more easily and accurately draw conclusions.

– The detection of phenomena is important in real-time tests so the test engineer can adapt to the conditions. An algorithm was designed and implemented to detect these phenomena and send instructions to the lead test engineer. This led to more accurate tests and time reduction.

– Skills used: Project management, Interdisciplinary group management, Python, Matlab

BACK-END DEVELOPER & I+D

Quiside Industries S.L | June 2018–November 2018 (Internship)

– The main goal was to refactorize and integrate a code interacting with a FPGA (Field Programmable Gate Array) dispositive. The code performance and the interaction with the user was improved. Later on, this code was used in the investigation and developing tasks. This improved code was later used in the investigation and development of other tasks.

– Investigation and implementation of Monte Carlo simulations in finance and fluid dynamics, using the improved code mentioned above. Monte Carlo simulations use random numbers to numerically solve problems that are too difficult to solve with conventional analytical methods, problems such as fluid dynamics, where there is not an analytical solution.

– Skills used: C++, Python, Microsoft Project, LaTeX, OpenFoam

IN-DEPTH EDUCATION SUMMARY

MSc in Computational and Mathematical Engineering (ICyM)

Universitat Oberta de Catalunya & Universitat Rovira i Virgili, (UOC & URV)

October 2020–ongoing

Interdisciplinary training in the areas of engineering and applied sciences. The ICyM programme includes current issues such as: computer modeling and simulation, numerical methods, parallel and distributed computing applied to high-end performance machines, knowledge representation, networks and graphs, heuristic optimization, artificial intelligence, dynamics systems, differential equations, computational fluid dynamics and Big Data.

Aerospace Systems Engineering

Universitat Politècnica de Catalunya, Escola d'Enginyeria de Telecomunicació i Aeroespacial de Castelldefels, (EETAC)

Graduation June 2019

Specialized in Avionics, communication, Navigation and Surveillance Systems (CNS) and Air Traffic Management (ATM). Advanced knowledge of navigability, communication, geolocation and observation satellites, space engineering, electronics, aerodynamics, flight mechanics and flight control systems. Experience in route planning, airspace management and the implementation, development and maintenance of ATM and CNS systems, aerodynamics and computational fluid dynamics. High level of programming and critical thinking.

Bachelor's thesis: Water Tunnel Study, Design and Commissioning