ADAM ELGHAIB

AEROSPACE ENGINEER

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ABOUT ME

I graduated in Aerospace Engineering from the Polytechnic University of Catalonia, Spain. Currently, I work as an electronics validation engineer at Bertrandt's Group. My role consists of ensuring the correct integration between Mercedes-Benz automotive systems. Throughout my academic career, I was part of an amateur rocketry student association called Cosmic Research and I also had the opportunity to do an internship at CIMSA, a company specialized in developing parachutes for all kinds of applications. I have always been passionate about science, particularly, about robotics and space exploration. Learning and being in constant development is something fundamental to me.

EDUCATION

Aerospace engineering (30 ECTS) January, 2023 - June, 2023

Linköping University

Erasmus program in Sweden.
Final degree thesis: Exploration of Force Control in UAV Actuators, 24 ECTS. Grade: Pass with distinction 5.0/5.0
Courses: Aircraft Systems Engineering, 6 ECTS.

Aerospace vehicles engineering (210 ECTS) 2019 - 2023

Universitat Politècnica de Catalunya

Solid and multidisciplinary training in the different aspects of engineering, but with emphasis on the aspects specifically related to aeronautics and space vehicles.
Avarage grade: 7.13/10.0

WORK EXPERIENCE

Automotive electronics validation engineer (HiL) July, 2023 - Present

Bertrandt Group

Carrying out test automation to ensure the correct software integration between different car electronic control units (ECUs) through hardware in the loop (HiL) techniques.

- In charge of mirror heating, dimming, and adjustment systems of two different car series, and seat heating, ventilation, comfort, and alcohol-blocking systems of another car series.
- In close contact with the customer, Mercedes-Benz AG, and with colleagues in Germany.
- My main tasks consist of, executing around 800 tests every month and a half for each software release to ensure the correct functioning of the systems required by the customer. Reporting unexpected behaviors, and implementing new tests in Visual Basic.

Skills: Visual Basic · HiL · CANoe · PROVEtech:TA · Jira · MS Office · Basic German · English

R&D Aerospace engineer Internship November, 2022 - January, 2023

CIMSA Ingeniería de Sistemas

CIMSA Ingeniería de Sistemas is a world-class parachute company with activities in design and manufacturing of all kinds of parachutes and aerodynamic stabilizers.

- Developed an excel tool for the company to process data from the book "*Parachute Recovery Systems Design Manual, T.W. Knacke*".
- Provided suport to other departments in CAD.

STEM Tutor September, 2018 - July, 2022

7 D'Aventura

- I tutored STEM subjects to high school students, I helpd more than 50 people improve their academic performance.
- From this experience, I acquired communication skills and I have learned the value of being clear and organized while teaching.

VOLUNTEERING

Technical Engineer October, 2020 - May, 2022

Cosmic Research

Cosmic Research is made up of more than a dozen of university students from various technical backgrounds. It's a multidisciplinary team of volunteers fueled by the dream of reaching space. Developing low-cost suborbital rockets for science applications and educational purposes.

October, 2020 - September, 2021

Started in the ground segment department as a mechanical engineer working on the launch pad systems, logistics, and associated risks of the Bondar Mission, the most powerful supersonic rocket made by students in Spain.

ACHIEVEMENTS

- I helped to reduce the amount of time needed to assemble the launch pad from 2:45 h to 1:30 h.
- In November 2021 we carried out the Bondar Mission without any incidents.
- We designed and tested with FEM and analytical methods several pieces of the launchpad in order to improve its performance.
- We did a structural analysis of the launchpad to ensure structural stability and detect possible failure modes.

September, 2021 - May, 2022

I became the coordinator of the ground segment department and also I was working in the avionics department for Christa Mission.

ACHIEVEMENTS

- We designed in Siemens NX the compartments where the avionics systems of Christa's rockets were attached.
- I participated in the welding process and design of the embedded avionics systems.
- We did several separation tests of the deployment of the parachute and the payload with pressurized CO2 loads.

October, 2020 - May, 2022

Besides, I was part of the press department, where my role was to design graphic material for the association.

ACHIEVEMENTS

- I designed the pieces of vinyl of Bondar and Christa rockets.
- We contacted different companies to establish sponsorships.
- I edited and produced some publications for the Instagram, Facebook, Linkedin, Twitter, and YouTube accounts of the association.

CERTIFICATES

Cambridge Advanced Exam CAE / C1 December, 2023
Cambridge University Press & Assessment
IC4910003

Basic Level In Occupational Risk Prevention (50h) October, 2021
ASPY Prevención
ID : 654964.2021.10.34896

Driver's license B May, 2021
Dirección General de Tráfico

PUBLICATIONS

Badia, A., Cantos, D., el Ghaib, A., Hidalgo, J., Martí, M., & Pena, A. (2022). Final testing, pre-launch activities, launch and post-launch analysis of a sounding rocket made by students in Spain. 4 th Symposium on Space Educational Activities Barcelona.

LANGUAGES

English, C1
French, A2
Catalan, Native
Spanish, Native
Arabic, Native
German, Beginner

TECHNICAL SKILLS

Problem-solving
Creativity
Critical Thinking
Perseverance

HOBBIES

Calisthenics
Gym
Music
Football

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