Jorge Benavides Macías

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WORK EXPERIENCE

Quandum AeroSpace S. L.   **Mar. 2024 – Present**
Electronic Engineer   *Málaga, ES*

- My primary responsibilities involve designing electronic solutions to address various challenges. This comprehensive process includes all stages of project development, from creating a requirements matrix to designing, verifying, and initiating PCB start-up, utilizing Altium Designer for all electronic designs.
- I also program a range of microcontrollers, including AVR, ESP-32, STM32 ARM Nucleo boards, and FPGAs like the Virtex-7 from Zybo.

DHV Technology   **Sep. 2023 – Mar. 2024**
Electronic Engineer   *Málaga, ES*

- As a member of the electrical department, I designed solar panels for space applications and other power subsystems for various platforms. I used tools such as **SolidWorks for 3D modelling and Altium for PCB design.**

PROJECTS

Final Degree Project: Designing for Data Acquisition with PSoC - Paper

- Designed a circuit board for acquiring data from piezoresistive sensors integrated into a robotic manipulator's gripper.
- Led circuit design, component selection, material procurement, and PCB trace routing.
- Developed C code for PSoC ARM, implementing SPI and UART communication protocols.

LaCaja - News | Web | Video | Github

- Crafted an AI-driven escape room experience featuring "Chiquito de la Calzada," offering participants a chance to win a position at Google.
- Contributed significantly to software and hardware, developing two games and managing soldering and connections.
- Earned the opportunity to visit Google's Malaga offices and present the project.

Digital Design and VHDL Development - Github

- Proficient in designing, simulating, and synthesising digital circuits using VHDL.
- Developed diverse testbenches, from debouncers to factorial calculation systems, and integrated MicroBlaze IP core into a Mastermind-like game.

EDUCATION

Universidad de Málaga   **September, 2023**
Bachelor of Electronics, Robotics and Mechatronics, Major in Robotics and Automation   *Málaga, ES*

- I achieved Summa cum laude in my final degree project and in industrial computing, which was a course focused on microcontrollers.

CERTIFICATIONS, SKILLS & INTERESTS

- **Certifications:** Preliminary English Test (PET) | Level B1 Cambridge Assessment English.
- **Skills:** Teamwork, Creativity, Customer orientation, results orientation Eagle, Altium, Bash, Linux, C/C++, Python, VHDL, I2C, ARM, Microcontrollers, UART, SolidWorks, Git.
- **Interests:** Film buff, music lover, free Software, emacs, electronic design, programming.