Jorge Corpa Chung

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EDUCATION_____

Sep.2020-Jun.2023 **The University of Manchester**   Manchester, UK

Degree: B. Eng (Hons) in Electrical and Electronic Engineering

IT skills: MATLAB /Python / C language / C++ / SolidWorks / Altium / CubeIDE / LTspice / HAL Library (C)/ Pandas and Numpy Library (Python)/ Microsoft Office/

RESEARCH EXPERIENCE

Sep.2022-May.2023 **LED Solar Simulator Design**

Undergraduate Final Project, Advisor: Prof. Matthew Halsall

- Reviewed the literature and researched into the existing solutions to determine the best design scheme.
- Used Thorlabs spectrometer to capture the solar spectrum of the simulator
- Used Arduino to program and power the LED solar simulator
- 3D printed a showerhead to mount the LEDs with SolidWorks
- Tested the efficiency of solar panels and compared to that of commercial solar simulators
- Achieved a classification of ABA according to standard compliances
- Delivered a research report to summarize the design project and propose ideas for further improvement

Jan.2023 – May.2023 **Research project on Smart Solar of Iberdrola**

Individual Project

- Researched and wrote a report on the product "Smart Solar" provided by Iberdrola in terms of commercial technology development
- Analysed and compared with similar technologies offered by current competitors in the market.
- Created a Business Model Canvas table for the report
- Researched into the design criteria and analysed the triple bottom line impacts of the solar panels
- Analysed future plans of the project and relevant SDGs and product life cycles

Sep.2021-Jun.2022 **Autonomous Line-following Buggy Project**

Embedded Systems Project Leader, Advisor: Dr. Laith Danoon

- Served as a team leader to successfully construct an autonomous line-following buggy
- Designed the chassis of the buggy and the sensor board (tool used: SolidWorks)
- Measured and plotted the graphs of the motor torque to select a suitable gear box
- Programmed the STM32 (Microcontroller) of the buggy using C language; and designed the PID control algorithm to make the buggy follow the line

Oct.2020-Mar.2021 **Research on Smart System**

Leader of the Group-based Project

- Conducted research on smart systems and automated vehicles, delving into the crucial sensors for building a smart bus, mainly focusing on motion sensors and infrared sensors
- Developed a smart system simulation by programming the Arduino and sensors using C language
- Wrote the research report and gave a presentation on the behavioural change of a temperature sensor when exposed to heat and how to implement the sensor into the system

PROFESSIONAL EXPERIENCE

Jun.2022-Sep.2022 **Dyson Ltd** Malmesbury, UK

Electronics / Hardware Intern, R&D Electronics

- Engaged in background research on the component's characteristics and accordingly created a component's emulator for product testing.
- Programmed an STM32 Microcontroller using CubeIDE
- Designed hardware circuits and realized a closed loop control using PWMs and ADCs
- Implemented a well-designed user interface with the help of an embedded software engineer

TEACHING EXPERIENCE

Oct.2020-Oct.2022 **Private Tutor**

- Provided tutoring for high school students (A-level)
- Subjects taught: mathematics, physics, and computer science

EXTRACURRICULAR ACTIVITIES

Oct.2020-Oct.2021 **University Volleyball Team**

- Trained and competed in BUCS (British universities & College Sports)

Oct.2015-Oct.2019 **The captain of The Sports Team of High School**

- Led team members in intercollegiate competitive sports, including soccer, track and field, etc.
- Created a discussion board focused on soccer-related topics

ADDITIONAL INFORMATION

Language skills: Spanish (native), English (fluent), Chinese (fluent)

Awards: Sports competitions between international schools: 100m (first place); standing triple jump (first place); long jump (second place); high jump (second place); 3km cross country (third place)