JOSEF NETO

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I am diligent, highly motivated and committed recent graduate. In search of diverse opportunities to learn new skills and combine in-depth engineering theories with practical techniques, as well as solving and understand complex engineering tasks.

EDUCATION

2014 – 2019: University of Glasgow, Master in Engineering (Meng Hons) Mechatronics. 2.1 Expected.

Programming skills: C programming, MATLAB and Simulink, Python Programming, HTML, Digital Signal Processing.

Software skills: Abaqus FEA, SolidWorks, LabVIEW, OrCAD PSpice Designer, Portunus, Proteus Professional, Grace, Code Composer Studio for real time programming.

5th Year Projects:

1. **Attitude determination system (ADS) for a CubeSat:** CubeSat is a small satellite; my responsibility was to develop and design a working prototype of ADCS. My approach to the project was to fuse sun sensors and 10 axes Inertial Measurement Unit sensor to sense the orientation of the CubeSat. I have further improved my embedded hardware and software skills.
2. **Fault Detection and Isolation for Heading Motion of an UAV**: The objective of this Project was to examine the effects of sensor faults on the lateral dynamics of an Unmanned Aerial Vehicle based on model-control. It was an individual project which was well tackled, my approach to detect the faults was to use limit checking, trend checking, change detection with fuzzy thresholds, residual analysis and to reconfigure the system, it was used a Kalman filter as the model.
3. **Development of advanced controller for Robot guidance**: My approach was to use Neural network, fuzzy logic controller to both reach the end goal and avoid obstacles.

4th Year Projects:

1. **Mars Rover Navigation Chassis and Testbed:** The objective of this project was to develop and design a fully autonomous Rover Robot that works in a mimic environment of Mars. I was the leader of this group project and learn some leadership skills as to be proactive and encourage my team to accomplish big goals.
2. **Develop and propose an energy generation and distribution system that is completely self-contained to the isle of Arran**: This project mixed seven students with different backgrounds and fields of study. It demanded greater exertion and effort. Nevertheless, it was rewarding, since I improved my scientific investigation, working in group, organizing and planning skills.

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3. **Fourier Transform, FIR filters and IIR filters algorithms development for Sound and Electrocardiogram enhancement:** This project was under the Digital Signal Processing subject where I enhanced my python skills for data science and signal processing.
4. **Lego MindStorms Robot fighter**: The aim of this project was to develop a fighting Robot for a competitive robot war challenge. I learnt to be more competitive as well as thoughtful.

3rd Year Project

1. **Flight Control System Design for a Restricted Motion Twin Rotor UAV**: This project aim was to simulate an aircraft that could go over different degree of freedom using MATLAB and Simulink. From this project I gained some programming skills and working in team skills.
2. **Robotic Arm**: The objective of this project was to simulate and apply the theory of control for a robotic arm using MATLAB and Simulink. I have highly improved my MATLAB and Simulink Programming skills.

2nd Year projects

1. **Pulse Oximetry**: This was a four student projects; aim was to develop non-invasive system for monitoring an individual's oxygen saturation. This project provided me some C programming skills, leadership, working in team skills.
2. **SolidWorks design of a hybrid bicycle aimed at women aged 20-40 years:** This was a six-student project where I was responsible to develop a modern fork. I developed my CAD skills.

2013-2014: Kaplan International English Manchester.

2010-2012: Institute Industrial of Luanda, (High School) Course: Engines and Machines. GPA 75%.

WORK EXPERIENCE

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1. **August 2017 – September 2017: Internship at: Catoca-Angolan Diamond Company.**

I interned at follow Departments: Electrical Department, Mechanical Department, Automation Department, Mineralogy Department. Assisted the Chief Engineers for each department at their daily work routine. Learning about the energy distribution over the industry, detecting malfunctions in machines using Service information system (SIS) from Caterpillar, planning financial mining framework and assisted automation control at the mining.

2. **February 2010 - September 2011: Automotive Mechanic Assistant in Car Repair Officine.**

I worked as mechanic assistant, learning to detect and solve automotive failures, faults and malfunctions.

PRIZES AND AWARDS

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1. Project Funding from the University of Glasgow (2018-2019).
2. CO-LAB: Smart Campus: Under Interdisciplinary Studies at The University of Glasgow (2017).
3. Cardlane award as the Best and Most Innovative Project in (2016).

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EXTRA CURRICULAR ACTIVITIES

1. G-tech: A Group of sixteen students and graduates, that together try to innovate, create and bring new ideas alive, which I am the **president and founder of the group**. Due to this group, I have highly improved my leadership skills, strong-minded and creative.
2. Member of **Robotics society** and **Hyperloop society** at the University of Glasgow.

INTERESTS

I am passionate about learning and excited about mega industry. I love Technology. I am also interested in further education, developing a career in academia. I am fascinated by oilrigs, space technology, Robotics, electrical cars and classic songs.

LANGUAGES

Portuguese: **Mother Tongue**.

English: **Fluent**.

REFERENCE

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