

## PERSONAL PROFILE

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Electrical/Electronics Engineer with 20+ years of proven experience in electrical/electronic systems, applying knowledge of electricity and electronics in a beneficial way in the highly regulated Oil and Gas industry. Adept in carefully diagnosing and assessing issues, and offering real viable solutions. Skilled in design, prototyping, installation, upgrades and testing. Working as a collaborative and positive team member, striving to utilize my knowledge and expertise for optimal engineering results. Experienced in the full life cycle of electronics/electrical products development.

## EDUCATION

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- **University of West of England-UWE** Bristol, UK  
*Machine Learning* Jan. 2020 – April. 2020
- **Fluminense Federal University - UFF** Rio de Janeiro, Brazil  
*Master of Science in Computer Systems* Jan. 2013 – March. 2015
- **Veiga de Almeida University - UVA** Rio de Janeiro, Brazil  
*Bachelor of Electrical/Electronic Engineering* Jan. 2003 – Dec. 2007
- **Henrique Lage Technical School** Rio de Janeiro, Brazil  
*Certificate in Electronics* Jan. 1990 – Dec. 1994

## CERTIFICATIONS

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- **IPC** England, UK  
*CID (Certified Interconnect Designer-Basic) - PCB Designer* Feb. 2024

## EXPERIENCE

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- **Schlumberger OilField UK** Stonehouse, England - UK  
*Senior Electronics Design Engineer* Aug 2022 - Present
  - **Electronic Hardware Design:** Design, prototyping and testing of complex electronic modules for hazardous environments (high temperature and high vibration) to be used in a range of applications in the oil and gas industry. Experience Designing switching mode power supply with different topologies, Magnetics (transformers and inductors) design and prototyping. Analogue and digital circuit design. Use of simulation tools as LTSpice, Matlab, etc. Development of an automatic test system using Python and Matlab.
- **General Electric Oil & Gas/Baker Hughes** Bristol, England - UK  
*Lead Electrical & Electronic Engineer* Feb 2019 - Aug 2022
  - **Electrical/Electronic Hardware Design:** Work on subsea control system, electrical and electronic equipment design. Including electrical panels, power units and communication equipment. Prepare product reports, test procedures and manuals by collecting, analysing, and summarizing information and trends. Perform a computer-based component, circuit, and system simulation to prove design performance and compliance with product specifications. Produce EMC assessment and test plan documents. Perform EMC test pre-assessment and attend EMC qualification at test house. Interface with internal customers and external production / mechanical engineering teams, vendors and other stakeholders.
- **General Electric Oil & Gas** Rio de Janeiro - Brazil  
*Lead Control System Engineer* Aug 2010 - Feb 2019
  - **Subsea Multiplexed Control Systems:** Technical advisor for new equipment design, redesign and new development related to electronic control systems discipline. Help the customer to increase the equipment up time and develop maintenance routines. Commissioning and maintenance of subsea equipment as BOP (Blowout Preventer). Experienced in UNIX/QNX operational system, PLCs, software troubleshooting, embedded controllers, AC Motor drivers(VFD) and electro-hydraulic system. Experience with RS232, RS485, TCP/IP and profibus communications protocols.
- **Fugro SA** Rio de Janeiro - Brazil  
*Technical Support Manager* Mar 2005 - Sep 2010
  - **Geophysical Equipment:** Commissioning, Corrective and preventive maintenance of geophysics, positioning and vessel support equipment as generators, electrical / hydraulic winches, AC VFD drivers, control systems, DGPS and Survey/Seismic equipment (Side Scan Sonar, Sub-bottom profiles, Multi beams, etc.) Electrical/Electronic/Controls Maintenance Workshop and offshore technical crew management. Design of electrical/electronic support devices. Fugro Academy's Engineering Instructor.

- **Subsea 7 SA** Rio de Janeiro - Brazil  
*Electronic Maintenance Technician* *Feb 1999 - Mar 2005*
  - **ROV and Oceanographic Equipment:** Responsible for Remote Operated Vehicles (ROV) and its support equipment (Video cameras, sonars, etc.,) maintenance and mobilization. Worked with Oceanographic/Hydrographic sensors (temperature, pressure, speed, etc.) maintenance, calibration and test. Developed of Oceanographic data analysis software using Delphi and Matlab.
- **Microware IT Solutions** Rio de Janeiro - Brazil  
*Electronic Maintenance Technician* *Apr 1995 - Mar 1998*
  - **IT Equipment:** Responsible for installation and Maintenance of Computers, Servers, UPS, Video Monitors, Laptops and General Software Repair.
- **Brazilian Navy** Rio de Janeiro- Brazil  
*Electronic Technician Apprentice* *Jan - Dec 1994*
  - **Radar, Sonar and Communication Systems:** Commissioning, Corrective and preventive maintenance of Radar, Sonar and Communication systems on board Submarines, Destroyers, Frigates and Aircraft Carries.

## ACADEMIC PROJECTS

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- **Mux BOP Analytics:** Development of a computer method to detect Multiplex Blowout Preventer System failure using data analysis and multivariable statistics. Software developed in MySQL, R Studio and Python.
- **S.A.A.C:** Short Circuit Calculation Software for Three Phase Power Systems, using Delphi, Pascal and Matlab Languages.

## LANGUAGE SKILLS

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- **Portuguese:** Native
- **English:** Fluent
- **Spanish:** Intermediate

## ELECTRICAL / ELECTRONIC HARDWARE SKILLS

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- **Power Electronics:** SMPS design, Magnetics(Inductor/Transformer design), Test and Validation
- **Hardware:** Prototyping, Bench Tests, Micro-solder (BGA, QFN, TQFP, SMD), Repair, Automatized Test
- **Communication Protocols:** Ethernet, RS-232, RS-485, RS-422, ModBus, Profibus, CAN, LIN, I2C, SPI
- **Microcontrollers/FPGA:** PIC, Arduino, ATMEL, STM32, XMC, ARM, Altera
- **Hardware Language and Simulation:** VHDL, SPICE, LTSpice, Proteus Simulator, Qucs, SPICE, MathCAD
- **Compliances and Standards:** EMC IEC/EN 61000, IEC/EN 55022, LV Voltage Directive EN/BS 61010, Electrical Installation BS 7671, EMC Pre-Assessments

## PROGRAMMING SKILLS

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- **Familiar with:** R, C, Pascal, Matlab, Simulink, Octave, Mathcad, Python, MySQL, HTML, CSS, C++, JavaScript

## COMPUTER/SOFTWARE SKILLS

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- **PCB Design:** Eagle Schematic and PCB Layout, KiCAD Suite, Cadence Allegro, Altium Designer
- **Technical Packages:** AutoCAD, AutoCAD Electrical, MathCAD
- **Document Packages:** LaTeX, MS Office, Keynote, Markdown
- **Operational Systems:** MacOS, Windows, iOS, Linux, QNX
- **Product Lifecycle Management (PLM):** SAP, ePims, TeamCenter

## PROFESSIONAL MEMBERSHIPS/CERTIFICATIONS

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- Institution of Engineering and Technology (IET - MiET) pursuing Charteship
- Portuguese Order of Engineers (OEP)
- Brazilian Engineering Council (CREA)

## HOBBIES AND INTERESTS

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Due to my enduring passion for engineering, I enjoy building upon my knowledge of various computer programs that I can utilise to further my career in the industry. I also enjoy develop website, electronic prototyping, guitar related projects, 3D models design/print, play guitar and listen to my Vinyl records collection