# Elton de Sousa e Silva

Electrical Engineer/Automation

Birth: (05/05/1979) City: São Luis/MA

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Electrical Engineer and Automation, with experience in large projects in the mining sector, aluminum refinery, and power generation, currently working on project and development of solutions using embedded systems and IoT, and wireless technologies.

Proficient in various project and management tools, including best practices in Project Management from PMI (PMP Certification Number: 1738905).

## Education

## 1. Master's Degree

Institution	State University of Maranhão
Course	Computer Engineering
Year	2020

## 2. Specialization

Institution	Uninter
Course	Project Management
Year	2006

## 3. Bachelor's Degree

Institution	Federal University of Maranhão
Course	Electrical Engineering
Year	1999 - 2006

## 4. Technical Degree

Institution	Federal Center of Technological Education of Maranhão -CEFET-MA
Course	Building Construction

Year

1996 - 1999

## **Professional Experience**

#### Iluflex

#### **Project Engineer and Developer**

#### 01/2023 - Present

- Development of projects and solutions in embedded systems and Internet of Things for residential, commercial, and industrial automation
- Technologies and Protocols Used
  - AWS, Alexa Skill, API Gateway, EC2, FireBase Real Time
  - Microcontrollers (e.g., ESP8266, ESP32, etc.)

## Aguiar Engenharia

## **Project Engineer and Developer**

#### 01/2018 - 12/2022

- Development of projects and solutions in embedded systems and Internet of Things for residential, commercial, and industrial automation
- Technologies and Protocols Used
  - PLC (Rockwell and Schneider)
  - o Microcontrollers (e.g., ESP8266, ESP32, PIC, 8051, etc.)
  - o IoT Protocols (ZigBee, MQTT, LoraWan, etc.)

## Universidade Pitágoras (Kroton Group)

### **Electrical Engineering Professor**

## 02/2015 - 12/2020

- Professor of Electrical Engineering and Automation courses
- Main Taught Disciplines
  - Robotics
  - Electrical Installations
  - Pneumatic Systems
  - Microcontroller
  - Embedded Systems and IoT device programming

#### Festo do Brasil

#### **Automation Engineer and Sales**

01/2015 - 12/2017

Develop complete solutions in embedded systems to improve clients' processes and results.
Negotiate supply contracts with clients, provide technical sales of equipment for all levels of industrial automation.

Ductor Implantação de Projetos Ltda

#### **Electrical/Electronic Engineer**

03/2013 - 12/2014

• Responsible for managing client contracts with contractors, overseeing construction projects, monitoring project progress to ensure contracted scope, etc.

Bemon Engenharia e Montagens Ltda

#### **Contracts Manager**

01/2012 - 03/2013

• Technical management and oversight of implementing the automation system for the railway pier in Carajás-PA.

Forship Engenharia S/A

#### **Commissioning Coordinator**

05/2011 - 01/2012

 Led the commissioning team and ensured technical and commercial aspects of the contract with Vale do Rio Doce were met.

Consulgal do Brasil Ltda

#### Client Inspector (Instrumentation Engineer)

01/2011 - 05/2011

• Inspection and monitoring of the MPX Thermoelectric Plant concerning instrumentation and automation.

Honeywell do Brasil Ltda.

#### **Construction Leader**

07/2006 - 01/2011

• Managed construction projects including project coordination, labor coordination, quality control, supply management, budget control, production process control, third-party service oversight, project delivery checks, and industrial machine process start-up.

## Skills

#### Certifications

- PMP Project Management Professional License number: 1738905
- FCP (Furukawa Certified Professional)

#### Programming

- Ladder (PLC)
- C++
- C
- Java
- JavaScript (NodeJS, etc.)
- Assembler (8051, PIC, and others)
- Python

#### **Industrial Technologies**

- Honeywell DCS (Distributed Control System)
- Rockwell PLC
- Industrial Networks (Devic Net, Control Net, DH+, Modbus)

#### **Completed Mini-courses**

- PLC Control Logix Programming and Maintenance from Allen-Bradley
- Introduction to Six Sigma

## **Key Projects**

- **Hot-Cutover Honeywell/Alumar:** Migration and modernization of the automation system for Alumar's aluminum refinery (Unit 1).
- ALREFU2: Implementation, Commissioning, and Start-Up of the aluminum refinery expansion project (Unit 2)
- Carajas Railway Duplication: Implementation of the commissioning methodology for the railway system (Infrastructure, Superstructure, and Electrical Systems).
- Carajas' Pear Automation: Project management of the automation project for Carajas' railway pear.
- Locomotive Refueling Station: Electrical and Automation project, Commissioning and Start-Up of locomotive refueling station 3 in Maraba-PA (Vale)

## Social Media

Linkedin

• GitHub