

# Diogo Costa e Silva

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## EDUCATION

### University of Minho

*Integrated Master's in Engineering and Management of Information Systems*

Guimarães, Portugal

Sep. 2016 – Jun. 2023

### Portuguese School of Mozambique

*High School in Science and Technology*

Maputo, Mozambique

Sep. 2013 – Jul. 2016

## EXPERIENCE

### Programa Contacto Sonae – Internship at MC Digital

*MC Digital – Platform Management Team*

Sep. 2024 – May 2025

*Maia, Portugal*

- Participation in weekly sprints with task management using **Jira** and technical documentation in **Confluence**.
- Administration of **Linux** systems, focusing on server maintenance, user management, file system operations, and task automation via **Ansible** and Bash scripting.
- Infrastructure provisioning in **Azure** using **Terraform**, including app registrations, Databricks clusters, containers, external locations, and secret scopes.
- Configuration of environments in the **Cloudera Data Platform**, creating **schemas** in Hue and access policies in **Ranger** across multiple environments.
- Technical support to development teams, solving permission issues, **ODBC** connection errors, application access problems, and job execution issues.

### Internship at Mozaboot

*PHC Partner Company*

Feb. 2024 – Mar. 2024

*Maputo, Mozambique*

- Integration into a small technical team focused on learning the **PHC ERP**, including its architecture based on **.NET** and **Microsoft SQL Server**.
- Research on the **PHC Artificial Intelligence module**, identifying use case scenarios and value propositions for real clients.
- Support in preparing a business presentation to a client, highlighting AI's potential to automate processes and enhance data analysis.

### Research Grant at ISISE

*University of Minho*

Feb. 2022 – Jun. 2023

*Guimarães, Portugal*

- Collaboration on the **REV@CONSTRUCTION** project, focused on collecting and analyzing data from optical sensors embedded in road pavements.
- Setup and configuration of a **Hadoop cluster** (1 master, 3 workers) in a **Linux** environment, enabling distributed data storage and processing.
- Automation of file transfer via **PowerShell + SFTP** between Windows systems and the Hadoop cluster.
- Development of **Python** scripts to ingest and structure data into **bronze tables** as part of a **Delta Lake** architecture.
- Exploration of tools like **Jupyter Notebook** and **Apache Zeppelin** in a distributed environment for interactive data analysis.
- Acquired strong practical skills in **Linux administration**, **Big Data**, and Hadoop ecosystem tools.

## TECHNICAL SKILLS

**Programming and Scripting Languages:** Python, JavaScript, SQL, HTML/CSS, PowerShell, Bash, Zsh

**Frameworks and Libraries:** Node.js, Spark, Pandas, Matplotlib, Scikit-learn, Seaborn

**Infrastructure and Cloud Tools:** Terraform, Azure, Databricks, Docker, Ansible

**Big Data Platforms and Ecosystems:** Hadoop, Hive, Hue, Ranger, Cloudera Data Platform, Delta Lake

**Databases:** Microsoft SQL Server, MySQL

**Development Environments and Operating Systems:** Linux, VS Code, Jupyter, Zeppelin

## LANGUAGES AND SOFT SKILLS

**Languages:** Portuguese (native), English (fluent), Spanish (basic)

**Soft Skills:** Effective communication, teamwork, problem-solving, autonomy, proactivity, continuous learning

## VOLUNTEERING

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### **Food Bank Against Hunger (Porto)**

*Volunteer — Social Action*

Sep. 2024

*Porto, Portugal*

- Assisted in receiving, sorting, and distributing food to families in need.

### **Matosinhos City Council**

*Volunteer — AMMA - Matosinhos Environment*

Nov. 2024

*Matosinhos, Portugal*

- Participated in invasive species removal and native tree planting initiatives.