

# Joel Jonassi

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**Gender**: Male **Date of birth**: 28/08/1999 **Nationality**: Mozambican

## SUMMARY

Dedicated IT Systems Engineer focused on problem-solving and creating innovative solutions. Committed to continuous learning and staying current with the latest technological advancements.

## SKILLS

### Computer Science & Data Structures

- Agile Methodologies
- Linux
- RESTFul API's, SOAP
- GIS
- Lists/Trees/Graphs
- Event Driven Architecture

### Programing Languages/ Frameworks/Tools

Knowlwnge of:

- C, C++, C#, Python, Javascript, Typescript, HTML/CSS, MQL5, SQL, Kotlin, Dart
- Angular Js, .NET, Unity, Flutter

### Communication & Interpersonal

- Effective communication in Portuguese and English
- Decision-maker and problem-solver
- Good initiative and sense of organization

## WORK EXPERIENCE

### Intern Software Developer

Optimizer

**Porto, Portugal | 02/2023 - 06/2023**

- Worked with Eletronic and Computer System Engineer on tracking animals system.
- Created a mobile app for famers to manager and track their animals.
- Creating a Web Platform for Administrator to manage Users and Devices/Animals of users.

**SKILLS**: Mobile Development (Android Studio/Kotlin), RESTFul API (C#, .NET, NTier), GIS, Database (PostgreSQL), IoT, Mosquitto (MQTT), GIT and GitHub.

### Marine Electrician

West Sea

**Viana do Castelo, Portugal | 08/2021 - 01/2022**

- Collaborated with construction team and engineers to integrate electrical systems into boat structure.
- Proficient in reading diagrams, identifying optimal wiring routes, and executing installations.
- Conducted testing and troubleshooting to ensure optimal functionality. Expertise in handling electrical equipment, prioritizing safety.

### Polymer Thermoforming Technician

Forma 3D, Ida

**Ribeirão, Portugal | 08/2018 - 06/2021**

- Operated and maintained thermoforming equipment for efficient production.
- Skills in preparing molds, loading raw materials, and controlling the process to obtain product specifications.
- Knowledge of the polymers used, including polystyrene, ABS, PET, PVC, acrylic, among others.
- Proficient in troubleshooting machine performance and resolving issues with material flow and product defects.

### **Intern Electronics, Automation and Control Technician**

MCL Components Ida

**Zejtun, Malta | 01/2018 - 03/2018**

- Development of Eggxactly (boiled eggs without water).
- Prototype quality test (Eggxactly).

### **Intern Electronics, Automation and Control Technician**

NIBBLE - Engenharia, Lda.

**Trofa, Portugal | 04/2017 - 06/2017**

- Assembly and manufacture of luminaires.
- Assembly and manufacture of push buttons, intrusion, and fire detection systems.

### **Intern Electronics, Automation and Control Technician**

Sataedu

**Pori, Finland | 03/2016 - 04/2016**

- Programming of PLCs "Ladder Language".
- Mounting of pneumatic circuits.

## **PROJECTS**

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### **Integration architecture to support IoT devices**

**Barcelos, Portugal | 02/2022 - 06/2023**

Internship Project

Animal Tracking project gives farmers unprecedented control over their herds by providing real-time information on the location, health and welfare of each animal.

This information is invaluable for optimizing grazing patterns, improve animal welfare. A system of this scale prevents theft and loss of animals when they are grazing, substantially reducing farmers' losses.

**SKILLS:** Mobile Development (Kotlin), RESTful API (C#, .NET, NTier), Database (PostgreSQL), Web Development (Angular).

### **VR Training for Public Speaking**

**Barcelos, Portugal | 09/2022 - 05/2023**

ERASMUS+ funded project (2020-1-FR01-KA226-VET-094712)

VR Training for Public Speaking helps combat the social phobia of public speaking. This system consists of a virtual reality mobile app and a web platform.

The VR mobile app introduces the participant to a public speaking simulation and assesses their behavior in real time to encourage them to speak effectively in public and manage negative states.

The web platform supports a set of services that allow users to enter speeches and scenarios into the system to practice. Scenarios and speeches entered by the administrator are accessible to all users and those entered by a user (non-administrator) are only accessible to that user.

**SKILLS:** Mobile Development (UNITY/C#), RESTful API (C#, .NET, NTier), Database (PostgreSQL), Web Development (Angular), Serious Game.

### **SmartRooms**

**Barcelos, Portugal | 09/2020 - 01/2023**

School Project

Project developed within the scope of the Applied Project discipline, to make classrooms more sustainable.

During the academic journey, a regular situation among newly arrived students is to seek information at the reception such as: i) Where the classes of a particular curricular unit are taking place ii) Where a particular room is located, and in certain situations the receptionist has to accompany to the place iii) Collect information about the room, which teacher is teaching? what discipline? what is the state of the room (temperature, humidity, harmful gases) iv) Turn off equipment eg. "Air conditioning" often forgotten on, turn off the lights. It's in this context that the SmartRooms project emerged, combined with the concept of Smart Cities to improve the daily academic life. It is a bidirectional system, which allows to control actuators and receive the status of actuators eg. "Temperature, Humidity, etc." through a mobile application.

**SKILLS:** Mobile Development (Android Studio/Kotlin, MVVM), RESTful API (C#, .NET, Ntier), Database (PostgreSQL), IoT (C, Python), Raspberry Pi, Arduino, Mosquitto (MQTT), GIT and GitHub.

### **Schedules making problem (Intelligent Agent)**

**Barcelos, Portugal | 09/2022 - 12/2023**

School Project

Developed and implemented an intelligent agent to optimize class schedules by minimizing travel to campus and classroom utilization. The agent aimed to find the most efficient solution that reduced the number of days each class had to commute and minimized the overall need for classrooms, thereby contributing to a reduction in campus travel and the requirement for air conditioning.

**SKILLS:** Python, Jupyter, Constraint Satisfaction Problems (CSP), GIT and GitHub.

### **Orange Recognition System**

**Barcelos, Portugal | 01/2022 - 06/2022**

School Project

Developed an algorithm for accurately identifying and analyzing oranges among other fruits on a production line. The system counted the total number of oranges, measured their area and perimeter, determined their location and center of gravity, assessed their quality based on caliber standards (Commission Regulation EEC 379/71 of February 19, 1971), and categorized them according to quality features. This automated solution enhanced efficiency and quality control in citrus fruit processing.

**SKILLS:** C++, OpenCV, GIT and Github.

### **Support systems for lawyers**

**Barcelos, Portugal | 02/2022 - 06/2022**

School Project

Developed a comprehensive support system for lawyers to streamline their daily activities. Recognizing the need for an information system to ensure timely processing of pending cases, the system efficiently alerts judges to upcoming deadlines based on relevant legal articles specific to each case. This solution enhances productivity and helps ensure compliance with legal procedures and timelines.

**SKILLS:** C#, RESTful API(C#, .NET, MVC), Web Development(Angular), Database (PostgreSQL), GIT and Github.

### **Traffic Light System**

**Vila Nova de Famalicão, Portugal | 01/20218- 06/2018**

School Project

The Traffic Light System project (implemented in Ribeirão at the Road Education School developed within the scope of the Professional Aptitude Test of the Electronics, Automation and Control Technician course at the Cior Professional School) has as its central objective to educate children for citizenship on the roads, teaching them, in a playful way, the importance of traffic rules.

**SKILLS:** Electronic Soldering, Embedded System, Arduino.

## **EDUCATION**

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### **Computer Systems Engineer**

Cávado and Ave Polytechnic Institute (IPCA)

**Barcelos, Portugal | 12/2020 - 07/2023**

**Level in EQF:** Level 6

**Main subject / occupational skills covered:**

- Advanced data structure (C).
- Object-Oriented programming (C#).
- Language Processing (Python "Ply and Yaac").
- Software Analysis and Modeling.
- Computer Vision (C/C++).
- Web Programming (Angular, JavaScript, HTML and CSS).
- Mobile device programming (Android Studio/Kotlin).
- Data Storage and Access (UML Diagram, PostgreSQL).
- Decision Support System (Power BI, Kettle, Dax).
- Artificial Intelligence (CSP Agents, ML algorithms).
- Cybersecurity.

### **Electronics, Automation and Command Technician**

CIOR Professional School

**Vila Nova de Famalicão, Portugal | 09/2015 - 06/2018**

**Level in EQF:** Level 4

**Main subject / occupational skills covered:**

- Digital Systems.
- Applied Technologies.
- Electricity and Electronics.

- Automation and Command.

## Electrician Technician

Escola Profissional do Songo:

Cahora Bassa, Tete, Mozambique | **2012 - 2014**

**Level in EQF:** Level 3

### Main subject / occupational skills covered:

- Technical Design and Schematic Drawing.
- Locksmith/Mechanics and Electrical Practices.
- Electrical Technology and Adjustment Technology.

## LANGUAGE SKILLS

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**Mother tongue(s):** Portuguese and African Languages

Other language(s):

### English

**LISTENING C1 READING C1 WRITING B2 SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2**

*Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Advanced user*

## DRIVING LICENSE

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**Cars:** B1

**20/04/2018**

**Cars:** B

**20/04/2018**

## HONORS and AWARDS

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### RoboParty

**Guimarães, Portugal | 2017**

- Participation in the RoboParty"project, organized by University of Minho.

### IdroneCup

**Braga, Portugal**

- 1st Place in the IdroneCup contest, promoted by the IPCA.
- 2nd place in the "IdroneCup" contest, promoted by the IPCA.

**2017  
2016**

## PUBLICATIONS

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### Virtual Reality for Public Speaking Phobia Mitigation

**Porto, Portugal | 2023**

- Contributed as a co-author to the publication of the article "*Virtual Reality for Public Speaking Phobia Mitigation*" at the Centeris - International Conference on ENTERprise Information Systems.

## ATTACHMENTS

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**Certificate of participation Erasmus+ Project  
Cior Professional School Certificate**

**Porto, Portugal | 2023  
Vila Nova de Famalicão, Portugal | 2023**