

José António Portela Areia

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Professional Experience

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| 09/2023 – present
Leiria, Portugal | Invited Assistant Professor , <i>Polytechnic of Leiria</i> <ul style="list-style-type: none">• Teaching Computer Technology in the Short Cycle Program of Cybersecurity and Computer Networks. |
| 09/2023 – present
Leiria, Portugal | Graduated Student Researcher , <i>Computer Science and Communication Research Centre</i> <ul style="list-style-type: none">• Enrolled in the Research Project: Secure and Privacy-Preserving Machine Learning. |
| 04/2022 – 04/2023
Leiria, Portugal | Student Researcher , <i>Computer Science and Communication Research Centre</i> <ul style="list-style-type: none">• Performed initial research on Smart Cities and their impact on our society.• Developed simulations of an IoT network to represent a Smart City.• Conducted cyber attacks on the simulations and captured the generated traffic.• Studied Machine Learning, Neural Networks, Multilayer Perceptron, and Classification Metrics.• Built Neural Networks to identify intrusions in the mentioned datasets.• Wrote an article about the theme and the research process. |
| 02/2019 – 02/2021
Leiria, Portugal | Full-Stack Web Developer , <i>Estudar Portugal</i> <ul style="list-style-type: none">• Developed a web application using Laravel to manage human resources, documents, and financial situations for the company.• Designed the data model for the application.• Designed the graphical interfaces for the application.• Managed and maintained a web and email server.• Built a website for a subdomain of the company.• Implemented the Scrum and Kanban hybrid work methodology (ScrumBan). |

Education

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| 09/2023 – present
Leiria, Portugal | Master Science Degree in Cybersecurity & Digital Forensics , <i>Polytechnic of Leiria</i> <ul style="list-style-type: none">• Grade: NA/20 |
| 10/2020 – 07/2023
Leiria, Portugal | Bachelor Degree in Computer Engineering , <i>Polytechnic of Leiria</i> <ul style="list-style-type: none">• Grade: 16/20 |
| 09/2018 – 07/2020
Leiria, Portugal | Short Cycle Programmes (TeSP) in Web Dev and Multimedia , <i>Polytechnic of Leiria</i> <ul style="list-style-type: none">• Grade: 20/20 |

Projects

Le Paglie, *Found & Core Contributor*

- A machine learning-based video surveillance application.
- Deployed with Laravel, Vue 3, Python & Node.js.
- Implements the following protocols: HTTP/HTTPS, FTP/FTPS, and RSTP.
- Designed to recognize specific users and generate alerts if they are not recognized. It can also identify animals and trigger a specific action if the animal is not identifiable.

La Gavotte, *Found & Core Contributor*

- SDN controller to manage MikroTik devices. Specifically designed for Series 2 hAP ac2 Routers.
- The web application is built using Laravel and Vue 3 and utilizes MySQL as the underlying database service.
- This application can simultaneously control multiple devices and manage various parameters and settings of the routers, including Wireless, Bridge, Security Profiles, DNS, DHCP, and more.

Lyka Systems, Founder & Core Contributor [🔗](#)

- Management application developed for Estudar Portugal company.
- Deployed as a robust web application using Laravel, with MySQL as the reliable database service.
- Expertly designed to streamline and oversee crucial aspects such as human resources, document management, and financial operations.
- Additionally, it incorporates autonomous tasks to ensure regular verification of vital user information, such as payment dues and other essential updates.

Portal de Divulgações, Founder & Core contributor

- I was personally invited by the Polytechnic of Leiria to develop a management application for their institution.
- This web application, powered by Laravel and backed by MySQL as the robust database service, is deployed with Nginx as the reliable web server.
- The application efficiently manages a variety of services, including GAID, GIRE, and International ESTG.
- Furthermore, it incorporates autonomous tasks to ensure seamless delivery of newsletters to relevant students, ensuring they receive important updates on topics that concern them.

La Redoute 3D, Founder & Core contributor [🔗](#)

- Developed a captivating conceptual website for La Redoute, featuring an immersive 3D product showcase powered by Three.js.
- Implemented the JavaScript mixer, Webpack, to enhance project organization and development processes.
- Crafted all application mockups with precision using the industry-standard design tool, Figma.

Other relevant projects [🔗](#)

Publications

Machine Learning-Based Intrusion Detection in IoT Medical Networks, Zenodo [🔗](#)

The project "Machine Learning-Based Intrusion Detection in IoT Medical Networks" encompasses a plethora of datasets and captures. These datasets include the IP protocol and Bluetooth captures, comprising both malicious and normal instances. The main objective of this publication is to make a contribution to the scientific environment in the field of IoMT Cybersecurity by providing realistic scenarios of network traffic derived from these datasets.

Awards and Certifications

Merit grants, Polytechnic of Leiria [🔗](#)

Merit grants were given to the five students with higher GPAs in the Short Cycle Programmes (TeSP).

CCNA - Introduction to Networks, Cisco Networking Academy [🔗](#)

Course completed with a score of 91% in the ITN Final Skills Exam (PTSA) and 88,2 % in the Final Exam.

Capture the Flag Competition, Void Software & Hack The Box [🔗](#)

In 8 hours of competition, I captured 4 of the 6 available flags, giving me the third position in the competition.

Skills

Proficient

Linux, Bash, Networking, Laravel & System Administration

Highly Familiar

Python, JavaScript, Vue 3, Java, Perl, Tensorflow & C

Other Technologies

Git, Electron, SQL, Virtualization, Azure, Cisco IOS & LaTeX

Languages

Portuguese

C2, Native with full proficiency

English

C1, Highly proficiency

French

B1, Limited working proficiency