



## KEYWORDS

### Publications:

Data Science  
Artificial Intelligence  
Virtual Robotics  
Gamification  
Adoption Model  
Programming Learning

Last [Google Scholar](#) alt-metrics  
(2020/11/09):  
h-index:3; 32 citations.

### Development:

Scrum, UML,  
Python, JAVA, C & C++  
SQL, NoSQL(MongoDB)  
HTML & CSS JavaScript  
CAD, L<sup>A</sup>T<sub>E</sub>X, Assembly (MIPS, 8086)  
Git, SDN, STP, ICMP, ARP, DNS

## COURSEWORK

### GRADUATE

Data Science  
Natural Language  
Autonomous Agents & Multi-Agent Sys.  
Planning, Learning & Int. Decision-Making  
Machine Learning  
Information Systems Management  
Information Visualization  
3d Programming

### UNDERGRADUATE

Software Engineering I & II  
Information Processing  
Algorithms & Data Structures  
Parallel & Distributed Programming  
Object Oriented Programming  
Signal Theory  
Network Programming  
Digital Networks I, II & III  
Management & Enterprise Accounting

## RESEARCH INTERET

I am interested in studying the applications of machine learning, game theory, and network science in the context of mobility, security, and sustainability.

## EXPERIENCE

### INESC-ID | RESEARCHER

Sep. 2020 - Present | Lisbon, Portugal

- Researched on a project focused on the improvement of public transportation in face of the demand change (iLU)

### INSTITUTO SUPERIOR TÉCNICO | TEACHING ASSISTANT

Feb. 2020 - Present | Lisbon, Portugal

- Spring 2020: Data Administration in Information Systems (ADSI) (Master in Information Systems and Comp. Eng., IST)
- Fall 2020: Information Processing and retrieval (PRI) (Master in Information Systems and Comp. Eng., IST)

### INSTITUTO DE TELECOMUNICAÇÕES | UNDERGRADUATE RESEARCH ASSISTANT

Nov. 2018 - Apr. 2019 | Lisbon, Portugal

- Worked on web scrapping and text extraction algorithms.

### ACM STUDENT CHAPTER AT ISCTE-IUL | CHAIR

Dec. 2016 - Feb. 2019 | Lisbon, Portugal

- Organized small events and open lectures, managed teams and participated in coding competitions.
- Gave 5 different talks in Robotics.

### IEEE STUDENT BRANCH ISCTE-IUL | CHAIR OF THE ROBOTICS AND AUTOMATION SOCIETY

Oct. 2016 - Jul. 2019 | Lisbon, Portugal

- Built robots for 2 competitions and managed 2 teams.

### CODERDOJO-LX | MENTOR

Apr. 2015 - Oct. 2017 | Lisbon, Portugal

- Taught the fundamentals of programming and electronics for project-based learning to children between 6 and 17 years old.

## EDUCATION

### MSC. IN INFORMATION SYSTEMS AND COMPUTER ENGINEERING

INSTITUTO SUPERIOR TÉCNICO UNIVERSITY OF LISBON

Expected Dec 2021 | Lisbon, Portugal

Advisor: Professor Rui Henriques and Dr. Elisabete Arsenio, PhD;

Current GPA: 17/20

### BSC. IN COMPUTER ENGINEERING

SCHOOL OF TECHNOLOGY AND ARCHITECTURE AT INSTITUTO UNIVERSITARIO DE LISBOA (ISCTE-IUL)

Jul. 2019 | Lisbon, Portugal

GPA: 17/20; Was class delegate for Computer Engineering major.

## EDUCATION CONT.

### DEEP LEARNING FOR AI AND COMPUTER VISION

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Aug. 2019 | Cambridge, MA

Was awarded a scholarship.

### DESIGNING EFFICIENT DEEP LEARNING SYSTEMS

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Jul. 2018 | Cambridge, MA

### INTRODUCTION TO PYTHON WITH ARTIFICIAL INTELLIGENCE APPLICATIONS

NOVA UNIVERSITY, INFORMATION MANAGEMENT SCHOOL (NOVA IMS)

Jul. 2017 | Lisbon, Portugal

GPA: 20/20

### INTERNATIONAL SCHOOL ON MODERN PHYSICS AND RESEARCH "THE QUANTUM LEGACY"

NATIONAL LABORATORY OF FRASCATI (LNF) OF THE ISTITUTO NAZIONALE DI FISICA NUCLEARE (INFN)

Feb. 2016 | Frascati (Rome), Italy

Lectures on Modern Physics and its applications in Society.

More at: <http://edu.lnf.infn.it/inspyre-2016/>

### INTERNSHIP IN DESIGN AND RAPID PROTOTYPING OF COMPONENTS USING 3D DRAWING TOOLS

INSTITUTO SUPERIOR TECNICO, UNIVERSITY OF LISBON

Jul. 2016 | Lisbon, Portugal

### YA-FIRST STEP, ENTREPRENEURSHIP PROGRAM

ISCTE-IUL BUSINESS SCHOOL

Jul. 2012 | Lisbon, Portugal

Learned basic concepts of finance, marketing and Investment analysis. Presented an implementation of a bike sharing service in Lisbon.

### RADIO SCHOOL

UNIVERSITY OF MINHO

Jul. 2012 | Braga, Portugal

## PUBLICATIONS

- Costa, C. J. Aparicio, J. T. (2020). POST-DS: A Methodology to Boost Data Science in the context of Covid 19. CSC'20 - The 18th International Conference on Scientific Computing. Jul 27-30, 2020 **Springer** (Accepted, not yet published)
- Costa, C. J. Aparicio, J. T. (2020). POST-DS: A methodology to boost data science. WAIM 2020 - 2nd Workshop on Artificial Intelligence and Management. 2020 15th Iberian Conference on Information Systems and Technologies (CISTI), 16. **IEEE**
- Aparicio, Joao Tiago, Pereira, S., Aparicio, M., Costa, C. J. (2019). Learning Programming Using Educational Robotics. 2019 14th Iberian Conference on Information Systems and Technologies (CISTI), 16. **IEEE**
- Aparicio, S., Aparicio, J. T., Costa, C. J. (2019). Data Science and AI: Trends Analysis. 2019 14th Iberian Conference on Information Systems and Technologies (CISTI), 16. **IEEE**
- Aparicio, João Tiago, Aparicio, M., Costa, C. J. (2018). A virtual robot solution to support programming. A Virtual Robot Solution to Support Programming, 139142. **IEEE**
- Aparicio, Joao Tiago, Aparicio, M., Costa, C. J. (2018). A Virtual Robot to support Programming Learning. ISR 2018 - 50th International Symposium on Robotics, 139142. **IEEE**
- Aparicio, Joao Tiago, Costa, C. J. (2018). A virtual robot solution to support programming learning an open source approach. 2018 13th Iberian Conference on Information Systems and Technologies (CISTI), 16. **IEEE**
- Costa, C. J., Aparicio, M., Aparicio, S., Aparicio, J. T. (2017). Gamification usage ecology. Proceedings of the 35th ACM International Conference on the Design of Communication, 19. **ACM**
- Pereira, R., Costa, C. J., Aparicio, J. T. (2017). Gamification to support programming learning. 2017 12th Iberian Conference on Information Systems and Technologies (CISTI), 16. **IEEE**

## MEMBERSHIP IN PROFESSIONAL SOCIETIES

- Association for Computing Machinery (ACM)
- Institute of Electrical and Electronics Engineers (IEEE)

## TALKS

- 2020 - Master Lecture: Creativity in Robotics: Lecture for a master students in the context of computational creativity @ ISCTE-IUL ISTA
- 2019 - Master Lecture: Open Source Robotics as booster to Creativity: Showcased practical applications of Robotics as a mean to encourage the making of original projects @ ISCTE-IUL ISTA
- 2018 - Master Lecture: Computing Creativity Robotics: Introduced robotics in the context of a Creative Computing class, with several examples of Open Source hardware solutions @ ISCTE-IUL ISTA
- 2017 - Master Lecture: Logistics Robotics: Introduced robotics in the context of logistics to the Information Systems and ERP course students at the ISCTE Business School @ ISCTE-IUL IBS
- 2017 - Introduction to Robotics using Arduino: Workshop about the use of Arduino, illustrating computer programming concepts @ School of Technology at IPS
- 2017 - SmartTalk: Robotics: Presented some elements of robotics in context of education and demonstration of a prototype for a firefighting robot competition. @ ISLA Santarem

## AWARDS

2020	National	EDP TOP 3 - Local   EDP University Challenge Portugal 2020
2018	School	ISTA TOP Talent Award (Academic merit award)
2017	School	ISCTE-IUL Research Week Finalist
2017	School	ISTA TOP Talent Award (Academic merit award)
2016	National	4 <sup>th</sup> Place, National Robotics Competition: Robocup Rescue Maze (Portugal)
2014	Scholarship	2 <sup>nd</sup> Place, FCUL Rally Pro (Programming Competition)
2014	National	3 <sup>rd</sup> Place, National Robotics Competition: Robocup Rescue (Portugal)
2013	National	3 <sup>rd</sup> Place, National Robotics Competition: Robocup Rescue (Portugal)
2012	International	Best Presentation Award: Worldwide Robotics Competition: Robocup Junior
2012	National	3 <sup>rd</sup> Place, National Robotics Competition: Robocup Rescue (Portugal)