



João Pedro Dias

ENGINEER. DEVELOPER. RESEARCHER. AMATEUR PHOTOGRAPHER.

Porto, Portugal

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Summary

Current Researcher at INESC TEC and pursuing a PhD degree in Informatics Engineering. Graduated from the Integrated Masters in Informatics and Computing Engineering, I'm passionate about technology, with a special focus on security and privacy, web development, data mining & Internet of Things. Besides that, I'm also an amateur photographer, football player, book lover and science addict.

Education

Doctoral Program in Informatics Engineering – ProDEI (PhD)

Porto, Portugal

FACULTY OF ENGINEERING, UNIVERSITY OF PORTO (FEUP)

2016–Exp. 2020

- Title: *Towards a Reference Architecture for Orchestrating Large-Scale Internet of Things' Systems using Visual Programming Languages*

Master in Informatics and Computing Engineering – MIEIC (MSc)

Porto, Portugal

FACULTY OF ENGINEERING, UNIVERSITY OF PORTO (FEUP)

2011–2016

- GPA: 15 out of 20
- Volunteer at *Semana Profissão: Engenharia (SPE) 2014 & 2016*

Sciences and Technologies

Amarante, Porto, Portugal

EXTERNATO DE VILA MEÃ

2008–2011

- GPA: 17 out of 20

Experience

INESC TEC – Institute for Systems and Computer Engineering, Technology and Science | CSIG – Centre for Information Systems and Computer Graphics

University of Porto, Porto, Portugal

RESEARCHER

May 2017 – Today

- Researching in the area of Internet of Things, with special focus on Blockchain and Healthcare applications, in the scope of the project NanoSTIMA: *Macro-to-Nano Human Sensing: Towards Integrated Multimodal Health Monitoring and Analytics.*

LIACC – Artificial Intelligence and Computer Science Laboratory

University of Porto, Porto, Portugal

RESEARCHER

Sept. 2016 – Apr. 2017

- Researching data representation and data mining applications on railway transportation systems in the scope of the project PEDDIR: *Weigh in Motion and Wheels Defect Detection.*
- Technologies: **MongoDB**, **Python** and **Web Development** | Project details: www.peddir.eu & www.in2rail.eu

ShiftForward, S.A.

Porto, Portugal

SUMMER ENGINEERING INTERN

Jul. 2015 – Aug. 2015

- Development of a Deploy Logger Service, a service for documenting and recording the release of new product versions over time.
- Technologies: **Scala** and **Backbone.js** | Project details: [shiftforward.github.io/malamute/](https://github.com/malamute/shiftforward)

Centro Hospitalar do Tâmega e Sousa, E.P.E.

Penafiel, Porto, Portugal

IT DEPARTMENT INTERNSHIP

Jul. 2014 – Aug. 2014

- Development of an expedient management system for replacing the existent system based on paper archives.
- Technologies: **MySQL** and **PHP**

Additional Training

2017 **Project Management**, ERASMUS+ Mobility for teaching

FEUP, Porto, Portugal

2016 **AWS Technical Essentials Online**, Amazon Web Services – Training and Certification

Online

2015 **Practical Workshop in Agile Project Management**, Strongstep - Innovation in Software Quality

UPTEC, Porto, Portugal

2015 **CERN Spring Campus**, CERN - European Organization for Nuclear Research

Lisbon, Portugal

2014 **M101JS: MongoDB for Node.js Developers**, MongoDB University

Online

Skills

Programming	Python  • Node.JS  • C/C++  • Scala  • Java  • C#  • PHP 
Web Technologies	HTML5  • CSS  • JavaScript  • Laravel(PHP)  • Flask(Python)  • Bootstrap(CSS)  • jQuery(JS) 
Databases	MySQL  • PostgreSQL  • InfluxDB  • MongoDB 
Others	Arduino  • Git  • Android  • Windows Apps  • Docker  • Computer Security  • LaTeX 
Languages	Portuguese (Mother-tongue)  • English 

Publications

CONFERENCE ARTICLES (PEER-REVIEWED)

- 2017 ***Patterns for Things that Fail***, António Ramadas, Gil Domingues, João Pedro Dias, Ademar Aguiar, Hugo Sereno Ferreira *Vancouver, Canada*
24th Conference on Pattern Languages of Programs (PLoP 2017) { DOI: [To Appear](#) }
- 2017 ***Towards a Framework for Agent-based Simulation of User Behaviour in E-Commerce Context***, Duarte Duarte, João Pedro Dias, Hugo Sereno Ferreira and Zaf. Kokkinogenis *Porto, Portugal*
15th International Conference on Practical Applications of Agents and Multi-Agent Systems (PAAMS'17) { DOI: [10.1007/978-3-319-61578-3_3](#) }
- 2017 ***Automating the Extraction of Static Content and Dynamic Behaviour from e-Commerce Websites***, João Pedro Dias and Hugo Sereno Ferreira *Madeira, Portugal*
8th International Conference on Ambient Systems, Networks and Technologies (ANT'17) { DOI: [10.1016/j.procs.2017.05.355](#) }
- 2017 ***A hands-on approach on botnets for behavior exploration***, João Pedro Dias, José Pedro Pinto and José Magalhães Cruz *Porto, Portugal*
2nd International Conference on Internet of Things, Big Data and Security (IoT BDS 2017) { DOI: [10.5220/0006392404630469](#) }

OTHERS

- 2017 ***Automating the Extraction of Static Content and Dynamic Behaviour from e-Commerce Websites***, João Pedro Dias and Hugo Sereno Ferreira *Porto, Portugal*
10th Meeting of Young Researchers of University of Porto (IJUP 2017)
- 2016 ***A hands-on approach on botnets for a learning purpose***, João Pedro Dias, José Pedro Pinto and José Magalhães Cruz *Porto, Portugal*
9th Meeting of Young Researchers of University of Porto (IJUP 2016)

DISSERTATIONS

- 2016 ***Reverse Engineering Static Content and Dynamic Behaviour of E-Commerce Sites for Fun and Profit***, Supervised by Hugo Sereno Ferreira | Grade of 17 out of 20. *Porto, Portugal*
Master's Dissertation, Faculty of Engineering, University of Porto { ID: [10216/85374](#) }

Educational & Scientific Activities

MASTER'S DISSERTATION CO-SUPERVISING

- 2017 ***Serverless Architectural Design for IoT Systems by Duarte Pinto, Supervised by Hugo Sereno Ferreira, PhD***, Masters in Informatics and Computing Engineering, Faculty of Engineering, University of Porto *Porto, Portugal*
- 2017 ***Exploring Blockchain as an Authentication and Security Mechanism for IoT by Guilherme Pinto, Supervised by Hugo Sereno Ferreira, PhD***, Masters in Informatics and Computing Engineering, Faculty of Engineering, University of Porto *Porto, Portugal*
- 2016 ***Interoperability In Software Applications For Smart Cities: Towards A Reference Architecture by José Pedro Pinto, Supervised by Rosaldo Rossetti, PhD***, Masters in Informatics and Computing Engineering, Faculty of Engineering, University of Porto *Porto, Portugal*

PROGRAM COMMITTEES & REVIEWS

2017	PC Member , IEEE S3C 2017 - 2017 IEEE Summer School on Smart Cities	Natal, Brazil
2017	IEEE Intelligent Vehicles Symposium (IEEE IV'17) , Reviewer	California, USA
2017	IEEE 20th International Conference on Intelligent Transportation Systems (IEEE ITSC 2017) , Reviewer	Yokohama, Japan

Conference Organization

2018	Conference Organization Chair , DSIE'18 – 13th Doctoral Symposium in Informatics Engineering	Porto, Portugal
2018	Advisor Board Member , Talk a Bit – Technology Conference, 6th Edition (2018)	Porto, Portugal
2017	Student Volunteer (Media Coverage) , EPIA 2017 – 18 th EPIA Conference on Artificial Intelligence	Porto, Portugal
2017	Web Communication Co-chair , ACM CarSys 2017 – The Second ACM International Workshop on Smart, Autonomous, and Connected Vehicular Systems and Services, part of the The 23 rd Annual International Conference on Mobile Computing and Networking (MobiCom 2017)	Utah, USA
2017	Advisor Board Member , Talk a Bit – Technology Conference, 5th Edition (2017)	Porto, Portugal
2016	Conference Chair , Talk a Bit – Technology Conference, 4th Edition (2016)	Porto, Portugal
2016	Web Communication Co-chair , 2016 IEEE 19th International Conference on Intelligent Transportation Systems (ITSC 2016)	Rio de Janeiro, Brazil
2014	Student Volunteer , Inter-University Programming Marathon (MIUP 2014)	Porto, Portugal
2014	Student Volunteer , INForum - Symposium on Informatics (INForum 2014)	Porto, Portugal

Invited Talks & Workshops

Information Systems and Software Engineering Seminars (SESI & SES)	Lisboa, Portugal
HOSTED AT FACULTY OF ENGINEERING, UNIVERSITY OF PORTO FOR STUDENTS OF THE MIEIC & MESW DEGREES	Sept. 2017
• Seminar: <i>How to Kill Your Privacy and IoT Your Home Along the Way.</i>	
Pixels Camp 2017	Lisboa, Portugal
HOSTED BY BRIGHT PIXEL AND BETA-I	Sept. 2017
• Workshop: <i>PiHeadquarters or How to Take Control of your House with Raspberry Pi and Docker.</i>	
OPOSEC Meetup: [0x33] – The Meet	Porto, Portugal
HOSTED BY BLIP.PT	Apr. 2016
• Presentation: <i>A hands-on approach on botnets for a learning purpose.</i>	
ShARE World Seminar 2015 – “Europe vs. Asia: Grass Is Always Greener On The Other Side”	FEUP, Porto, Portugal
HOSTED BY SHARE GLOBAL STUDENT THINK TANK	March 2015
• Workshop: <i>How To Create Your First Personal Webpage.</i>	

Pro Bono Activity

ACADEMIC

IEEE University of Porto Student Branch	Porto, Portugal
STUDENT MEMBER	2012 – Today
EXECUTIVE COMMITTEE (SECRETARY)	2013 – 2015
• As a voluntary member I had organized and co-organized some workshops (C#, Photography, \LaTeX , Web Development) and other events including <i>IEEE Day</i> , <i>IEEEExtreme</i> and <i>IEEEmadC</i> .	
• As secretary I was also responsible for maintain the minutes of all meetings and other paperwork.	

HUMANITARIAN

Luz da Vida Youth Group	Amarante, Porto, Portugal
FOUNDER MEMBER	2009 – 2011
• Founder and former active member, I had taken part of large number of activities on behalf of the village community.	

Honors & Awards

INTERNATIONAL

- 2017 **847th (of 2815)**, Google Hash Code 2017, hashcode.withgoogle.com *Online – Porto, Portugal*
- 2015 **189th (of 2477)**, IEEEExtreme – 24h Programming Competition 9.0, sites.ieee.org/xtreme *Online – Porto, Portugal*
- 2014 **Honorable Mention**, IEEEmadC – Mobile Application Dev. Contest, ieemadc.org *Online – Porto, Portugal*
- 2013 **126th (of 7500)**, IEEEExtreme – 24h Programming Competition 7.0, sites.ieee.org/xtreme *Online – Porto, Portugal*
- 2013 **2nd Place**, European BEST Engineering Competition, ebec.best.eu.org *Warsaw, Poland*

DOMESTIC

- 2011 **1st Place**, PmatE Mat12 – Mathematics Competition, pmate.ua.pt *University of Aveiro, Portugal*
- 2009 **2nd Place**, PmatE Fis12 – Physics Competition, pmate.ua.pt *University of Aveiro, Portugal*