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: Engenheiro (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 –

- 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: *Weigth 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/*

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 · ***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 (IoTBDS 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 · ***Interoperability In Software Applications For Smart Cities: Towards A Reference Architecture*** **by José Pedro Pinto, Supervised by Prof. Rosaldo Rossetti**, 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

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 23rd 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)	*FEUP, Porto, Portugal*
2014	**Student Volunteer**, INForum - Symposion on Informatics (INForum 2014)	*Porto, Portugal*

Invited Talks & Workshops

OPOSEC *Meetup*: [0x33] – The Meet   *Porto, Portugal*
Hosted by Blip.pt   *Apr. 2016*
- Present the work *A hands-on approach on botnets for a learning purpose.*

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 on *How To Create Your First Personal Webpage.*

Pro Bono Activity

Academic

IEEE University of Porto Student Branch   *Porto, Portugal*
Student Member   *2012 – 2016*
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 *IEEE Day*, *IEEEXtreme* and *IEEEmadC*.
- As secretary I was also responsable for mantain 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)**, IEEEXtreme – 24h Programming Competition 9.0, *sites.ieee.org/xtreme*	*Online – Porto, Portugal*
2014	**Honorable Mention**, IEEEmadC – Mobile Application Dev. Contest, *ieeemadc.org*	*Online – Porto, Portugal*
2013	**126th (of 7500)**, IEEEXtreme – 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*