

# ANTÓNIO ALEGRIA

## PERSONAL DATA

*Born in Lisbon, Portugal* February 6, 1985

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## PROFILE

Software Engineer who likes to be at the intersection of business and technology. Passionate and experienced in designing and implementing “right-time” Business Activity Monitoring applications using Complex Event Processing. Thrilled to learn, improve the status-quo and solve challenging problems using state-of-the-art tools. Skilled in Java but loves leveraging (J)Ruby’s expressiveness to quickly build robust, maintainable and elegant systems.

## WORK EXPERIENCE

*Software Engineer* *Current* Portugal Telecom (PT) – SAPO.pt, Lisbon  
Currently in the Big Data team developing event processing systems. Worked on the Mobile Apps team as an Android App developer.

Highlights (Big Data):

- Designing and developing an Esper-based automatic [metric aggregator for an in-house KPI management system
- Developing SAPO Alerts, a domain-independent real-time event subscription and filtering platform used by PT and 3<sup>rd</sup> parties (Java, XML, PostgreSQL, Netty, SOAP)

Highlights (Mobile):

- Implemented and shipped over 5 Android Apps including SAPO News – SAPO’s flagship App with over 70,000 users
- Spearheaded Scrum implementation
- Proactively managed and coordinated a large part of the SAPO News mobile Apps project

*Software Engineer* *Sep 2008 – Jul 2010* Portugal Telecom, Lisbon  
Core developer of realtime Business Activity Monitoring system using Complex Event Processing (CEP).

Highlights:

- Designed and implemented core CEP system in Pulso (Esper, JRuby, ActiveMQ, Starling, MySQL)
- Designed and implemented domain-independent BAM patterns and rules for business process and application monitoring solutions (Esper)
- Implemented tens of real monitoring scenarios for several mission-critical business processes and applications in PT (Esper, Ruby)

*Software Engineer Intern* *Sep 2008 – Jul 2010* Portugal Telecom, Lisbon  
Developed and applied MSc research in PT where results were tested in three real-word Information Systems Architectures. Helped development of an in-house network application and infrastructure discovery and management system.

Highlights:

- Designed, implemented and applied an automatic IT architecture verification and discovery system that used deep passive traffic analysis and rule-based logic inference to run a “fact-check” on a proposed IT architecture model (Logtalk/Prolog, Ruby, C and an assortment of network traffic analysis tools)
- Designed and implemented a wide range of deep packet analysis agents for enterprise application identification and error detection (PADS, Ruby, C)

*Intern* *Sep 2008 – Jul 2010* INESC-ID - Distributed Systems Group, Lisbon  
Researched and implemented ad-hoc (mesh) network applications for mobile devices using Bluetooth, RF-ID and Microsoft .Net Compact Framework.

## HIGHER EDUCATION

*MSc in  
Computer  
Engineering*

*November 2009* Instituto Superior Técnico, Lisbon  
Major: Software Engineering · Minor: Distributed Systems  
Thesis: “Automatic Verification of IT Architecture Models for Networked Information Systems”  
Thesis Grade: 19/20 · GPA: 16/20

*BSc in Computer  
Engineering*

*July 2007* Instituto Superior Técnico, Lisbon  
Major: Software Engineering · Minor: Distributed Systems · GPA: 16/20

## TRAINING AND CERTIFICATION

*July 2011* Lisbon Machine Learning School  
Google-sponsored international summer school.

*January 2011* Scrum Alliance – Certificate Scrum Master  
Institution: SOMETHING, SA

*October 2009* Initial Pedagogical Training for Trainers  
Institution: PORTUGAL TELECOM INOVAÇÃO, SA

*June 2002* Certificate of Proficiency in English  
Institution: UNIVERSITY OF CAMBRIDGE, LOCAL EXAMINATIONS SYNDICATE

## PUBLICATIONS

**ALEGRIA, A., AND VASCONCELOS, A. 2010.** IT Architecture Automatic Verification: A Network Evidence-based Approach. In *Proceedings of the Fourth IEEE International Conference on Research Challenges in Information Science*, RCIS 2010, Nice, France, May 2010, LOUCOPOULOS, P. AND CAVARERO, J.L., Eds. 1-12

## CONFERENCES & EVENTS

*November 2011* Codebits V, Lisbon  
*Speaker* Presented talk *Complex Event Processing with Esper*.  
Video: <http://j.mp/cepvideo2011> · Slides: <http://j.mp/cepslides2011>

*May 2011* Startup Weekend, Coimbra

*May 2010* RCIS 2010, Nice, France  
*Speaker* Presented paper *IT Architecture Automatic Verification: A Network Evidence-based Approach*.  
Slides: <http://bit.ly/XXXXXX>

## MAIN SKILLS & INTERESTS

*Programming Languages* Ruby and JRuby (including Java integration) · Java · C · Prolog/Logtalk · Scala

*Platforms & Libraries* Esper · Sinatra · Android · ActiveMQ, Starling/Kestrel, SAPO Broker

*Databases* MongoDB · MySQL · PostgreSQL

*Languages* ENGLISH · Fluent (Certificate of Proficiency in English)  
SPANISH · Competent  
FRENCH · Average  
JAPANESE · Basic  
PORTUGUESE · Mother Tongue

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