ANTÓNIO ALEGRIA

Born in Lisbon, Portugal, February 6, 1985

email antonio.mc.alegria@gmail.com

phone (+351) 965 558 738

web antonioalegria.com

PROFILE

I am a Software Engineer who loves designing and building systems that make sense of data, turn them into actionable insights for people and businesses in real-time and at scale. I am thrilled by solving challenging problems in elegant and efficient ways by using state-of-the art tools and having an eye for quality.

WORK EXPERIENCE

Feb 2012-Ongoing FeedZai, Lisbon

Senior Software Engineer As a co-founding member of the R&D team, I have been working as a Data Scientist and Software Engineer focusing on building new technology used in real-time Big Data, Predictive Analytics and Fraud Prevention.

Highlights:

- Currently leading and co-developing data-processing and machine learning components of new real-time fraud detection product. Tech: Scala, Java, Akka, Apache Hadoop, Twitter Storm, CEP, R.
- Co-designed and implemented Predictive Analytics module for continuous, real-time time-series forecasting. Tech: Java, CEP, HTML5, Javascript, CSS.
- Responsible for certifying FeedZai Pulse with Cloudera CDH and for integrating FeedZai products with SAP HANA, spearheading the partnership with SAP, which resulted in SAP Ventures' investment in FeedZai. TECH: Java, Apache Flume, SQL, SAP HANA.
- Continuous market research and technology evangelization.

Jul 2010–Feb 2012 Portugal Telecom – SAPO.pt, Lisbon

 $Software \\ Engineer$

Worked in the Big Data team developing event processing systems and in the Mobile Apps team as an Android developer.

Highlights (Big Data):

- Designed and implemented a real-time, automatic metric aggregator for in-house KPI management system. Tech: Java, Esper, JSON, MQ.
- Maintained SAPO Alerts a domain-independent, real-time event subscription and filtering platform used by PT and 3rd parties. Tech: Java, XML, PostgreSQL, Netty, SOAP.

Highlights (Mobile):

- Implemented and shipped over 5 Android Apps including SAPO News SAPO's flagship App with over 100,000 users. Tech: Android, Java, SQLite, HTML5, Javascript.
- Spearheaded Scrum adoption.
- Proactively managed and coordinated a large part of the SAPO News mobile Apps project.

Sep 2008–Jul 2010 Portugal Telecom, Lisbon

Software Engineer

Core developer of real-time analytics and Business Activity Monitoring system -Pulso - using Complex Event Processing (CEP).

Highlights:

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

Nov 2007-Aug 2008 Portugal Telecom, Lisbon

 $Software \\ Engineer\ Intern$

Developed and applied MSc research. Results were tested in three real-word Information Systems Architectures. Helped development of in-house automatic network application and infrastructure discovery system.

Highlights:

- Designed, implemented and applied an automatic IT architecture verification and discovery system that uses deep passive traffic analysis and rule-based logic inference to run a "fact-check" on a proposed IT architecture model. Tech: 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. Tech: C, Ruby, PADS.

Feb 2005–Jun 2006 INESC-ID - Distributed Systems Group, Lisbon

Intern

Researched and implemented ad-hoc (mesh) network applications for mobile devices using Bluetooth, RF-ID and Microsoft .Net Compact Framework.

HIGHER EDUCATION

Nov 2009 Instituto Superior Técnico, Lisbon

MSc in Computer Engineering Major: Software Engineering · Minor: Distributed Systems

Thesis: "Automatic Verification of IT Architecture Models for Networked

Information Systems"

Thesis Grade: $19/20 \cdot \text{GPA: } 17/20$

Jul 2007 Instituto Superior Técnico, Lisbon

BSc in Computer Engineering Major: Software Engineering $\,\cdot\,$ Minor: Distributed Systems $\,\cdot\,$ GPA: 16/20

TRAINING AND CERTIFICATION

Sep 2012 IELTS General Exam

IELTS Band Score: 8.5/9

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Jul 2011 Lisbon Machine Learning School

Google-sponsored international summer school.

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Jan 2011 Scrum Alliance – Certificate Scrum Master

Institution: VANTAGEM+

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Oct 2009 Initial Pedagogical Training for Trainers

Institution: PORTUGAL TELECOM INOVAÇÃO, SA

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Jun 2002 Certificate of Proficiency in English

Institution: University of Cambdrige, 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, http://j.mp/rcis2010paper.

CONFERENCES & EVENTS

Sep 2012 SAP HANA Bootcamp, Dublin, Ireland

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Nov 2012 Codebits VI, Lisbon

Awarded Team

Built a distributed slide presentation platform with support for real-time metrics and crowdsensing from mobile device sensors (Node.js, HTML5, Javascript, CSS). Our team placed $4 \mathrm{th}$ in 100.

Nov 2011 Codebits V, Lisbon

Speaker Presented talk Complex Event Processing with Esper.

Video: http://j.mp/cepvideo2011 · Slides: http://j.mp/cepslides2011

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May 2011 Startup Weekend, Coimbra

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May 2010 RCIS 2010, Nice, France

Speaker

Presented paper IT Architecture Automatic Verification: A Network Evidence-based

Approach.

Slides: http://j.mp/rcis2010slides

MAIN SKILLS & INTERESTS

 $Prog. \ \ Languages \qquad \qquad \text{Java} \ \cdot \ \text{Scala} \ \cdot \ (\text{J}) \\ \text{Ruby} \ \cdot \ \\ \text{R} \ \cdot \ \text{Other: Javascript, C, Prolog/Logtalk}$

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 $Dist. \ \ Computing \qquad \qquad \text{Hadoop} \ \cdot \ \text{Twitter Storm} \ \cdot \ \text{Akka} \ \cdot \ \text{Scalding} \ \cdot \ \text{Apache Pig}$

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 ${\it Messaging} \qquad \qquad {\it Active MQ} \; \cdot \; {\it Starling/Kestrel} \; \cdot \; {\it SAPO Broker} \; \cdot \; {\it Apache Flume}$

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 $Databases \qquad \qquad {\it PostgreSQL} \; \cdot \; {\it MySQL} \; \cdot \; {\it Cassandra} \; \cdot \; {\it SAP\; HANA} \; \cdot \; {\it MongoDB}$

 $Other\ Platforms \qquad \qquad \text{Esper}\ \cdot\ \text{Weka}\ \cdot\ \text{Sinatra}\ \cdot\ \text{Node.js}$

English · Fluent

SPANISH · Competent Listening and Speaking

Languages French · Competent Listening and Limited Speaking

Japanese · Elementary
Portuguese · Native

 ${\bf Management} \ \cdot \ {\bf Predictive \ Analytics} \ \cdot \ {\bf Fraud \ Detection}$

April 15, 2013