

# Gonzalo Alvarez

## Curriculum Vitae

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Born in León (Spain), Dec 31 1981

## Education

- 2000–2007 **Master's Degree in Telecommunications Engineering**, Vigo University.
- 2005–2007 **Master's Final Project**, Vigo University, ASP Web Environment development.

## Work Experience

- 2013–Present **Senior Software Development Engineer at Amazon.com**, Seattle, USA. Activities:
  - *Amazon Checkout*: Architecture, implementation and deployment of a new REST service for the Amazon Retail Checkout environment using the most modern techniques and platforms to allow mobile, wearables and thin top devices to provide checkout functionalities for Amazon customers.
  - *Amazon Business*: Implementation of a number of solutions, including a checkout pipeline from scratch.
  - *Softlines CX Backend/Frontend Engineer*: Design and development of Java based architectures within the Softlines CX team using technologies like Spring, Oracle, Backbone, Handlebars, Tomcat and Memcache, among others. Scrum Master.
- 2011–2013 **Senior Systems and Software Architect at The Server Labs**, Madrid, Spain. Activities:
  - *Software Engineer for BBVA*: Development of a Web Platform for the BBVA Bank based on J2EE and Maven using the well known Controller-Service-DAO pattern based on the Spring Framework for the backend with JPA to connect to the OracleDB and JavaServer Faces and Primefaces for the presentation layer. It has been developed following modern CI standards based on Maven, Hudson/Jenkins and Jira for bug tracking.
  - *SimCloud Architect Engineer*: Design, implementation and testing of a Private Cloud Environment solution for the European Space Agency based on VMWare ESXi, OpenNebula and Chef with its own, custom developed, Web Interface.
  - *Cloud Architect*: Design, implementation and operational support of several cloud based solutions for multinational corporations and organizations like ESA, Decathlon or ICCAT. Intensive usage of AWS Solutions, such as EC2, S3, VPC, Route53, ELB, AutoScaling or RDS.
- 2009–2011 **Systems and Software Engineer at European Space Agency Operation Centre (ESOC/ESA)**, OPS-GIB Section, Darmstadt, Germany. Activities:
  - *Scrum Master and Software Engineer*: Developer and Software Architect of several applications used in the ESTRACK Ground Stations in line with the European Space Ground Operations Software, such as EUDGSSC or the EUD MIMICS based on Java and Maven.

- *Validation Engineer*: Definition and application of validation procedures and documentation for several projects deployed on ESA Ground Stations like FIDES (File Disseminator for ESTRACK Ground Stations) or FARC (File Archive used as SCOS telemetry storage).
- *TMTCS Engineer*: Technical responsible for the Telemetry and Telecommand System maintenance. In charge of the continuous validation and integration of the system. Creation of the appropriate SPRs, SCRs and Technical Notes related to the day-to-day work by using several tools, such as DOORS, Mercury Quality Center and Synergy Database. Participation in the Radio Frequency Compatibility Test (RFCT) on the TMTCS side for several missions, such as Yinghuo or Fobos-Grunt. Adaptation of the TMTCS to the ESA Mission Gaia for achieving the highly demanding telemetry rates on the Ground Station Infrastructure.
- *Server Administrator*: System administrator of the Ground Infrastructure Back-end Server used for active development activities and documentation. Setup of the system using Continuous Integration tools, like SVN, Hudson, Trac, Ant, IceScrum among others.
- *Technical Consultor*: Participation in Technical Committees and Task Forces as Advisor in many internal projects and activities, such as FEC Evolution, STC2 and GSMC.

2008–2009 **Young Graduate Trainee at ESOC/ESA, OPG-GIB Section, Darmstadt, Germany.** Activities:

- *Validation Engineer*: Technical advisor and supervisor of the Factory Acceptance Tests for the Egos User Desktop and Technical manager for the Site Acceptance Tests. Validation of FARC from S2K for its use with FIDES under the EGOS Model.
- *Software Engineer*: Technical revision for the requirements of the MIMIC project and development of an internal prototype based on Eclipse using EMF, GEF and GMF.
- *Documentation*: Creation of several Technical Notes, SRSs, ICDs, MoMs and other internal documents.

2007–2007 **Teacher of Project Management, Project management seminars provided to IMERYYS IKF Inc., A Guarda, Pontevedra, Spain.** Enterprise course teacher for Norformacion - Fundación Tripartita to IMERYYS IKF Inc. about Project Management theoretical aspects and the use of the Microsoft Project for designing Gantt Diagrams and keeping track of the project changes.

2005–2006 **Contracted Researcher, Vigo University, Spain,** Development of JPoEML, a Java tool (mimic oriented) for designing and producing an E-Learning web environment that uses XML and J2EE to serve the desired learning models to the users over the web. This tool, created from scratch and based on the popular JFreeChart Java Library, presented an editing environment similar to a UML Designing Tool used for creating and editing Learning Environments.

1999–2005 **Network Administrator and Web Developer, Freelance web developer and network administrator for local and national enterprises.** Design and deployment of a set of VPNs to provide media content to final clients through a Web Environment, Vigo, Spain.

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## Papers and Conferences

- Jun 2013 **SimCloud Paper and Presentation, ESA Workshop, ESOC, Darmstadt, Germany.** SimCloud: an Operational Simulator Development and Validation Cloud.
- Mar 2015 **Web Development Conference, UPM TryIT, UPM, Madrid, Spain.** User Focused Web Development.

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## Professional Training

- Jun 2014 **Interviewing Software Engineers**, *Amazon.com*, Amazon Spain, Madrid. Theoretical and practical approach to hire the best software engineers by identifying their weakness and strengths.
- May 2013 **AWS Technical Professional**, *The Server Labs*, Amazon.com. AWS training targetting IT professionals designing Cloud architectures based on customer business requirements..
- Apr 2010 **Agile Development Technologies**, *The Server Labs*, ESOC, Darmstadt, Germany. Software Development using Agile Metodology and SCRUM Techniques.
- Feb 2009 **Eclipse EMF, GEF and GMF Technologies**, *OBEO Eclipse Foundation Member*, ESOC, Darmstadt, Germany. Development of Eclipse Applications based on EMF/GEF and GMF.

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## Languages

- Spanish **Mother Tongue**
- English **Fluent** *More than eight years as primary professional language.*
- German **Good** *More than three years living in Germany, Goethe Institut level B2.*
- Italian **Basic** *Internal courses at ESOC/ESA.*

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## Software Development

- Languages Java, C/C++, Pascal, Fortran, Delphi, Visual Basic.
- Eclipse PDE, RCP, SWT, EMF, GEF, GMF, OCL.
- J2EE JSF, JPA, Hibernate, JAX-RS, JAX-WS, Liquibase, Spring, Jersey.
- Scripting Python, Bash, Tcl, Perl.
- Web PHP, ASP, JSP, GWT, HTML, Gurupa, CSS, JS, Grunt, Handlebars
- CI Hudson/Jenkins, Maven, Jira, SVN, Redmine, Trac, Ant.
- Others SQL, TestLink, TeX.

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## Computer Environments

- Unix Debian/SUSE/RedHat Linux, Solaris and Irix System Administration. LAMP.
- Networking HTTP, DNS, SMTP, FTP, LDAP, Samba, DHCP, SSH, NFS, Security.
- Virtualization Xen/XCP/XenServer, OpenVZ, VirtualBox, ESXi, Docker.
- Public Cloud Amazon Web Services, CloudSigma, Google Compute Engine, CloudBees, Heroku.
- Private Cloud OpenStack, OpenNebula, Eucalyptus.
- Provisioning Chef, Puppet, Fabric.
- J2EE Platforms Apache Tomcat, IBM Websphere, JBoss AS.
- Space CCSDS TM/TC/SLE/CFDP, ECSS SW Standards

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## Documentation and References

*Available upon Request.*