Santiago Angel

Big Data Architect & Technical Lead, Banco Santander
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Summary

Software architect with more than 10 years of experience in the financial, electric, education and public sectors with expertise in the areas of design, development and migration of applications with a focus on Java, web technologies, user interfaces and data processing.

Experience

Big Data Architect & Technical Lead at Banco Santander

Mexico City & Queretaro (Mexico) · Full-time · Since April 2017

Design and development of technical architecture using big data technology.

Analysis of data sources from traditional systems.

Responsible for Spark based solutions to support data ingestion from client and business data from all group.

Technologies used: Cloudera CDH 5, Apache Spark, Hive, Oozie, Hue, Scala, Amazon AWS.

Chief Technical Solution Architect at Successful Software IO

Mexico City (Mexico) · Full-time · December 2016 - April 2017

Responsibilities: Technical design, research, architecture, consulting and development of core projects: connectors for Payment Networks, SPEI in Mexico, SWIFT in France and Ripple Global Settlement Network for US and other markets.

Technologies used: Red Hat JBoss Enterprise Application Platform 7 with Java EE 7 & Java 8, Red Hat JBoss Fuse, C24 Data Platform, Red Hat JBoss BRMS, Microsoft .NET Core, Red Hat JBoss BPM Suite, 3scale API, Red Hat Single Sign-On, Apache Cassandra, Apache Spark, Scala, Red Hat JBoss Data Grid, MongoDB, HTML5, jQuery, Bootstrap, Amazon AWS, Microsoft Azure, Google Cloud, Red Hat OpenShift, Docker & Kubernetes.

Consultant/Pre-Sales Architect at Volante Technologies

Mexico City (Mexico) · Full-time · June 2015 - November 2016

Responsibilities: Architecture, consulting, design and support for projects at *HSBC Global Banking and Markets Mexico and Latin America* and with clients in Mexico, United States and Colombia.

In charge of the architecture of web services, **security** and UI for our product line *VolPay* (<u>Foundation,</u> (http://www.volantetech.com/products/volpay-foundation/) <u>Hub</u> (http://www.volantetech.com/products/volpay/volpay-hub/) and <u>Channel</u> (http://www.volantetech.com/products/volpay-channel/)). Maintenance of development, testing and pre-production environments of VolPay Hub with Amazon AWS, OpenShift and Docker.

Technologies used: Java Enterprise Edition 6 & 7, JAX-RS, JAX-WS, JAXB, JPA, Oauth, JWT, Apache CXF, JBoss Keycloak, JBoss PicketLink, Apache DeltaSpike, Spring Security, Red Hat JBoss EAP, Red Hat JBoss Tools, Apache Camel, Red Hat JBoss Fuse, Netty, IBM MQ, Volante Technologies Designer, Unix Shell, Eclipse, IntelliJ IDEA, UML, Maven, HTML5, AngularJS, jQuery, Bootstrap, C3, D3, Grunt, Amazon AWS, OpenShift, Docker.

Java Technical Lead at Grupo Financiero Interacciones online banking

Mexico City (Mexico) · Fulltime · March 2015 - May 2015

Responsibilities: Continuous improvement and implementation of key functionalities of the bank's security. Dynamic integration of authorization services for the business process protection. Creation of a security API design for backend consuming.

Technologies used: JAX-RS, JAX-WS, WS-Security, CXF, Oauth, JWT, SAML, Spring Security, Red Hat JBoss Data Grid, Red Hat JBoss EAP, Red Hat JBoss Tools.

Senior Software Engineer at HSBC Global Banking and Markets

Mexico City (Mexico) · Fulltime · August 2014 - March 2015

Responsibilities: Solutions design for the Risk and Regulatory Reports area of Bank of Mexico. Financial data integration and process engineering to unify different data sources and channels through data buses and business intelligence software.

Achievements: Improvement in the report generation. Time and risk reduction associated with new projects.

Technologies used: IBM Rational Team Concert, Red Hat Enterprise Linux 5, Informix DB, Oracle DB, Oracle Weblogic, IBM Websphere Application Server 6 & 7, Spring, Apache Camel, Red Hat JBoss Fuse, Volante Technologies Designer, Oracle Data Integrator, Unix Shell, AWK, IBM Sterling Connect Direct, Informix 4GL, Control- M, Eclipse, Maven, Java Security(Jasypt, Bouncy Castle).

Senior Software Engineer at BBVA Bancomer online banking for businesses

Mexico City (Mexico) · Fulltime · December 2013 - August 2014

Responsibilities: Support in the front-end architecture design. Framework election that met corporative requirements. Proof of concept, demonstrations and beta versions development.

Achievements: Development time reduction through automated build solutions integration. Code testing. State-of-the-art technology balance uses with stable, secure and validated versions.

Technologies used: IBM Rational Architect, Eclipse, STS, HTML 5, Spring(MVC, AOP, Thymeleaf), Hibernate Validator, JQuery, AngularJS, IBM Websphere 6 & 7, Maven, SVN, REST Web services.

Senior Software Engineer at Grupo Posadas

Mexico City (Mexico) · Fulltime · April 2013 - November 2013

Responsibilities: Requirements analysis and project implementation. Support and development to all of the company's loyalty portals. Production troubleshooting. Migrating projects in a continuous integration environment.

Achievements: Faster response time to fix errors through that use shared code repositories. Improvement in new and existing developments due to the implementation of agile environments and working methods based on standards.

Technologies used: IBM Rational Architect, Java EE, JBoss Enterprise Application Platform, JBoss Enterprise Portal, JBoss Enterprise SOA Platform, Eclipse, STS, SSH, Maven, SVN, Bash shell, JBoss Developer Studio, Oracle SQL Developer, Java EE, HTML 5, Spring, JSF, EJBs, JQuery, Alfresco ECM, JBoss ESB, Jira, Jenkins.

Software Engineer at BBVA Bancomer personal online banking

Mexico City (Mexico) · Fulltime · July 2012 - April 2013

Responsibilities: Design, development and testing for online banking (current and new version). Development of the login page (login) to integrate existing and new banks into a single model. Improvement and updating of applications. Automated generation of statistics and reports for user logs through bash scripts. Attention incidents in production, media analysis solutions to productive problems and reporting of business rules (BPW).

Achievements: Improved performance of the applications used in online banking. Web applications now meet current safety standards and HTML5. Automation of different processes.

Technologies used: Eclipse, STS, Bash shell, IBM Rational Architect, Java EE, HTML 5, Spring(MVC, security), JQuery, IBM Websphere 6 & 7, Apache Geronimo, Visual Age, SSH, Maven, SVN, Git, Jira, IBM MQ, LDAP, REST Web services, UNIX Daemons.

Jr. Software Architect at National Polytechnic Institute/Federal Electricity Commission (CFE)

Mexico City, Monterrey, Hermosillo, Oaxaca, Cuernavaca & Puebla (Mexico) · Fulltime · June 2007 - July 2012

Electric Distribution Network Simulator.

Responsibilities: Architecture design for the project. Sequence and class diagrams. Functional specification. Development of UI (Java Swing). Integration of geographic data (position of electrical equipment). Deployment of the electricity grid maps. Database modeling following the specification IEC CIM 61968. Migration and integration between databases (Informix and PostgreSQL). Application integration calculation for electrical networks programmed in Fortran and its conversion to JSON web services. Coordination of programmers and developers. Selection of software and hardware. Presentation of the project to CFE's managers.

Achievements: Creating innovative technology and world-class in the field of electrical engineering. Savings in project resources due to the usage of open software solutions. The implemented software can be scaled horizontally or vertically thanks to the raised modular architecture.

Technologies used: Enterprise Architect, Power Designer, Oracle SQL Developer, DB Visualizer, EnterpriseDB's PostgreSQL Advanced Server, Informix, JBoss Enterprise Application Platform, Spring, Hibernate, Eclipse, Netbeans, SSH, Maven, Git.

Software Developer at Federal Electricity Commission Technological University (UTEC CFE)

Mexico City (Mexico) · Consultant · January 2010 - July 2010

Online Learning Platform.

Responsibilities: Administration, operationalization and technical support to the distance learning platform *Moodle* used in the educational offer. Platform monitoring. Interface customization.

Software Developer at Federal Electricity Commission (CFE)

Mexico City (Mexico) · Consultant · December 2009 - January 2010

Simulation of hydropower plants.

Responsibilities: Graphical interfaces migration from GTK to Nokia Qt. Correction and adaptation of C code to C ++.

Software Developer at Secretariat of Public Education/National Polytechnic Institute (SEP/IPN)

Mexico City (Mexico) · Consultant · November 2008 - December 2009

Online Learning Platform.

Responsibilities: Administration, operationalization and technical support to the distance learning platform *Moodle* used in the educational offer. Platform monitoring. Interface customization.

Software Developer at ADEMSA/TMM

Mexico City (Mexico) · Fulltime · October 2006 - January 2007

Responsibilities: Improving administration and billing system tailored for this company implemented in Java using Apache Tomcat as application server and MS SQL Server as a database.

Software Developer at Technoloy Solutions of Mexico

Mexico City (Mexico) · Fulltime · September 2006 - December 2006

Responsibilities: Creation of an electronic billing system for ADEMSA/TMM. Developed to measure, using advanced electronic signature and Solomon ERP. It was implemented in Java using JBoss as an application server and MS SQL Server as a database.

Software Document management for the National Insurance and Bonding Commission (CNSF). I coordinated a team of programmers to make corrections and improvements to the development.

Proyects

VolPay Security Xeyes Engine - 4/6 eyes authorization engine. Sep 2016 to date

Santiago Angel, Oscar Flores Conde, Saúl Ortiz

4/6 eyes authorization engine (four/six-eyes principle and up to 10 security levels) for critical transaction approval (e.g. payments actions) completely integrated in VolPay Security - AuthC & AuthZ for Web.

VolPay Connectors for TCP sockets & IBM MQ. Aug 2016 to date

Santiago Angel, David Lozano Torres

Netty based connectors for VolPay Hub and legacy TCP sockets systems (e.g. AS400) with message interchange on IBM MQ between payments orchestration engine and internal banking systems.

VolPay Security - AuthC & AuthZ for Web. May 2016 to date

Santiago Angel, Santiago Montesinos Padilla, David Lozano Torres, Girisha Neeraje

Authentication & authorization for Java EE 6/7 web applications configured by CDI. It includes support of custom HTML5 login, Oauth token, (UI) management for user, roles & permissions (aka entitlement), two-factor authentication integration (HOTP, OTP) and four/six-eyes principle for critical transaction approval.

FEC - Banxico. Reporte de operaciones. October 2015 to date

Santiago Angel, Alicia Maya, Julio César Navarro Cabrera

HSBC - Reporting of transactions involving amounts over $ 100,000 USD to Mexico's central bank (Banxico) by the FEC protocol via TCP sockets using IBM MQ, Netty, Apache Camel and Volante Designer for transforming internal bank data to the format, channel encoding and serialization

required by Banxico.

VolPay Hub Integration for Ripple Global Settlement Network. September 2015

Santiago Angel, David Lozano, Santiago Montesinos Padilla, José García

REST based endpoints for integration to Ripple's Payments API in VolPay Hub.

VolPay Hub. June 2015 to date

Santiago Angel, David Lozano, Santiago Montesinos Padilla, José García

VolPay Hub is a centralizing payment orchestration engine for the digital payments age. Through open, configurable adapters any payment type, from any source or channel can be acquired and processed by the system. VolPay Hub enables the rapid standardization of processes and workflows, applying business defined rules to control and manage the flow of payment transactions inside the organization from acquisition to delivery. The application is a configurable, centralized, digital payment process orchestration application. It simplifies the mechanism for on-boarding new payment flows and then enables the execution of the necessary technical and functional activities to successfully and efficiently complete the lifecycle of any payment transaction. http://www.volantetech.com/products/volpay/

Reportes Regulatorios - Garantías - Banco de México. November 2014 to March 2015

HSBC - Compliance reports to Mexico's central bank (Banxico) of stock market transactions with Volante Designer for transformation and integration of internal data and generation of documents & statistics.

Simulador del Sistema Eléctrico de Distribución de CFE. June 2007 to June 2012

Santiago Angel, Ricardo Mota-Palomino, Miguel Jiménez Guzmán

This simulator allows the user to analyze and study future or historical conditions on the electrical behavior of the distribution network and take corrective or reactive actions. http://www.youtube.com/watch?v=pi6_lm8fYUw

Education

Bachelor of Science in Communications and Electronic Engineering with emphasis in Computing

National Polytechnic Institute, School of Mechanic and Electric Engineering, Mexico · 2002 - 2007

Professional Training

Developing Android Apps by Google, Udacity ud851, Jan 2017

Scala 101, Big Data University SC0101EN, Oct 2016

Bitcoin 101, Big Data University DS0321EN, Sep 2016

Hadoop 101, Big Data University BD0111EN, Aug 2016

OpenShift Enterprise 3, Red Hat, Jul 2015

Financial Data Integration, Volante Technologies, Nov 2014

Java EE 7 & AngularJS, New Circle Training, May 2014

Certifications

Apache Cassandra Developer Training, DataStax, August 2013

Sun Certified Java Programmer, Global Knowledge, January 2010

Linux, ESIME IPN, January 2006

Java, ESIME IPN, October 2005

Computer Programmer, Grupo CCEA, October 1996

English, Instituto Angloamericano, January 1995

Skills

Languages

Spanish (native)

English (professional proficiency)

Web Development

HTML, AngularJS, jQuery, Bootstrap.

Programming Languages

Java, Javascript, C, C++, Bash, Fortran.

Databases

MySQL, SQL Server, Informix, Oracle, PostgreSQL, Apache Cassandra.

Operating Systems

Linux, Solaris, Mac OS X, Windows.

Others

Enterprise Architect, Power Designer, Oracle SQL Developer, DB Visualizer, EnterpriseDB's PostgreSQL Advanced Server, IBM Websphere Application Server 6-7-8.5 , JBoss Enterprise Application Platform 5, 6 & 7, JBoss AS 7, JBoss Wildfly AS 8, 9 & 10, Eclipse, Netbeans, Spring, JSF, EJBs, SSH, Maven, Git, Bash, AWK, Jira, IBM Rational Architect, IBM Rational Team Concert, Red Hat Enterprise Linux 5-6-7, Informix DB, Oracle DB, Oracle Weblogic 11, Oracle Data Integrator, Volante Technologies Designer, IBM Sterling Connect Direct, Informix 4GL, Control-M, JBoss Developer Studio, Intel Compiler Suite, Maven, Git, Moodle, MySQL, Apache HTTPd, PHP, GIMP, Qt Designer, Gtk Glade, Gcc, Cygwin, Visual Studio, Vi, Apache AB, rsync, Hibernate, JSP, Apache Tomcat, iText, Ibatis, Struts, Red Hat OpenShift, Amazon AWS, Docker, JBoss Enterprise Portal Platform, JBoss Enterprise SOA Platform, STS, Alfresco ECM, JBoss ESB, Java Security(Jasypt, Bouncy Castle), Jenkins, Apache Cassandra, JEE7, AngularJS, Apache Camel, Red Hat JBoss Fuse.

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