

Carlos Rafael Ramirez



Panama, +50762359670, crramirez@gmail.com

<https://crramirez.com>, <https://github.com/crramirez>, <https://stackoverflow.com/users/story/2210035>

<https://www.linkedin.com/in/carlos-rafael-ramirez/>

17+ years of professional experience in many technical fields dealing with the most **challenging** tasks. I am passionate problem solver and very good with **performance** bottlenecks.

WORK EXPERIENCE

Smartmatic Panama S.A., **Senior Developer Team Lead**, Oct 2012 - Present

- Made the **integration** of our system's **user authentication** based on **Java EE** (without Spring Security) with an **external system** which manage the authentication, (like OAuth).
- Developed a **form recognition** in **OpenCV and Java** to **extract votes** from **scanned** vote tallies which allowed more than 400 operators transcribe thousands of votes from about **80K tallies**. Cutting the project costs in more than \$20K.
- **Elaborated**, found the budget and implemented a fixed annual **training plan** for all team members. With a budget of \$5K per year I was able to manage the training and certifications of **30 team members** in front-end, backend, database, security, etc. Increasing their productivity in at least 20%.
- Created a web application in **Spring Boot** to manage **cloud** stacks **using terraform** scripts reducing by more than a **half** the time to **deploy** a test environment.
- **Managed** the installation of a **private cloud** using Open Stack with the already **own resources** maximizing its shared use **saving** the company more than **\$5K per month** in cloud services.
- **Managed team of 7** in developing the adaptation of our **voter authentication** system to the Armenian Government law and business rules. The system was used to configure **more than 2K** voter authentication machines and to receive and classify the biometric data from about **5M voters**.
- Created and optimized the **Pentaho Kettle's** template for importing the biographic and biometric data of about **5M voters** from a remote PostgreSQL database **to our Oracle** one. The data was imported in less than one hour, due to the voter authentication machines had to be programmed and distributed **in less than 5 days**.
- Led **team of 5** in implementing and **stress testing a mission critical** web service in Java EE with **JMS**. It had to receive, store and route **270K transmission** packages from voting machines in less than **one hour**.
- **Managed team of 12** in upgrading our Election Management System for the new voting machines including the develop of the new **Ballot Designer**. It was used to design and **generate 1.7K** different ballot faces and serialize **80M of ballots in PDF** for 55M registered voters and 92K voting machines.
- Automated the installation of our Election Management System **inside a Docker** container and I set a before and an after in how the application is deployed. It reduced up to an **80% setup time** and reduced at least 30% of people needed to do the deployment on customer's data center.
- Led the installation and use of a continuous **integration platform (Jenkins)**, the migration of our build system from Ant to Maven, and installation of **Sonar as code review platform**. It improved a lot the daily releases to QA, the automated testing and code review.

- Restructured team of 9 to be the **first one in company** to fully implement **Scrum** achieving 50% more productivity, 90% releases on time and more than **30% less defects** found.
- *Skills Utilized:* OpenCV, Java EE / JAX-RS / JPA, Hibernate, Spring Data / MVC, Liquibase, AngularJS, Maven, Git, Jenkins, Oracle Database, PostgreSQL, Docker, Linux, Virtualization, Cloud computing, Terraform, Kettle

Smartmatic Labs C.A., Product Architect, Mar 2010 - Oct 2012

- Made scriptable all the pipeline of building a **custom operating system** for our standalone solutions, using FAI (Fully Automated Installation). It **avoided the rework** and made a completely auditable the OS image, reducing a lot the costs for solution certification.
- **Led team of 6** to polish and optimize our distributed Electoral Solution used in the Philippines 2010. It **reduced by half** the number of technicians needed to be in field solving technical issues.
- *Skills Utilized:* FAI, Linux, JBPM, JBoss, Java EE, Hibernate, JMS

Smartmatic Labs C.A., Software Lead, May 2008 - Mar 2010

- **Designed and led** the develop with a **team of 5** of our call center election day solution. It gives support through more than **900 operators** to more than **5K voting centers**. For the ticket workflow we used JBPM.
- *Skills Utilized:* Java EE, JBoss, GWT, Oracle Database, Hibernate, Hibernate Search, JBPM, Liquibase

Smartmatic Labs C.A., Software Engineer, Mar 2004 - May 2008

- Part of team of 8 which **developed** the Electoral Management System in **Java EE** used in many elections with at least **30K voting machines** and **11M voters**.
- *Skills Utilized:* Java EE, JBoss, Oracle Database, Hibernate, JMS

OTHER EXPERIENCE

- **Collaborate** with the project JOVR which is a **binding between Core Java and Oculus Runtime**, adapting it from de Oculus prerelease version **to the consumer one**. *Skills Utilized:* Java, JNA, JNI and C.
- Founded a **startup** to introduce people to **virtual worlds**, using **Open Wonderland** in **AWS** instances, packed the viewer made in **Java to Windows Store** and ported it to **Oculus Rift**. Also, I built its **e-commerce website** <https://cyramix.com> using Drupal. *Skills Utilized:* Java, OpenGL, C, PHP, Swing, Docker, AWS (EC2, Cloud Front, Route 53)
- Active **stack overflow** user with **4.1K** combined reputation in **answers** being the **top 5%** in docker tag.
- Solved a bug in **Wine** using **unit testing** and my patch was accepted (which is very difficult). *Skills Utilized: C Programming Language*
- Shared a skeleton to bring **Java applications to Windows Store** using Project Centennial on Github.
- **Dockerized** Lime Survey made public and it is the **first result in Google** with more than **100K downloads**.
- Spanish native, English professional level (IELTS 6, B2), French intermediate (DELFB1)

EDUCATION

Sun Certified Mobile Application Developer, Feb 2004

Sun Certified Web Component Developer, July 2003

Sun Certified Java Programmer, May 2002

Bachelor of Systems Engineer (Ingeniería de Sistemas): Computer Science, Oct 1993 – Aug 1999
Universidad Metropolitana, Caracas, Venezuela