Juan Pumarino Rodríguez

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- Ruby programmer since 2005; Rails since 2006, mainly with MySQL
- Data analysis with Spark/Scala since 2016
- Domain-specific knowledge in the publishing industry

Experience

Software engineer at Scribd (since February 2015)

I've primarily worked on backend systems for content ingestion, metadata parsing, payouts reporting and batch processing automation. My most impactful projects have been:

- A teammate and I built a scheduling system in JRuby which orchestrates data warehouse tasks (Hive queries and Spark jobs), handling dependencies and facilitating recoveries. After five years of operation the company is phasing it out in favor of Apache Airflow.

- I extended our ONIX metadata parser to accept ONIX 3 submissions from publishers. I also reworked the integration with our audiobooks provider (Findaway) to reimport their catalog daily.

- I've handled publisher's payouts calculation, which includes fixing bugs, adding specs and migrating the system from a series of asynchronous jobs to a Spark job. This has allowed us to cut down processing from 3 days to a couple of hours. I also provided support for the finance team.

- I worked on the migration of our app from Rails 4 to 5, the trickiest part was working around our home-grown patches multi-db ActiveRecord.

- I've been working on migrating our infrastructure from colocated servers in IBM Cloud to AWS. We moved all of our online traffic during 2020, and we're now migrating our data warehouse tasks.

- I've mentored interns and conducted interviews for candidates for a variety of backend teams.

Software engineer for Rebuss (October 2014 - March 2015)

Rebuss provides on-site inventory control services for retail companies in Chile, periodically counting stock in their warehouses and stores.

A teammate and I built the new platform for on-site operations, moving a legacy Visual Basic app to Rails. The main challenges were understanding the business logic in the old solution and address specific use cases for people in the field, who need to gather data from barcode readers and generate reports of unit count and valuation. Warehouses usually lack internet connectivity by design, so we had to implement automated laptop provisioning, including ad-hoc networking, as opposed to regular web app deployment.

We also trained three employees who had no prior Rails experience to help during the development phase and do further maintenance.

Software engineer at ComparaOnline.com (June 2010 - August 2014)

ComparaOnline is a Chilean online insurance and credit card comparison service. I closely worked with the CTO, growing the team from 4 to 20 engineers split into three teams. My most important work was:

- I integrated web services for providing sales quotes to end-users from various insurance and financial companies.

- I set up a home-grown telephony solution with Asterisk and integrated it with our web app for instant communication between customers and call center agents.

- I dealt with performance bottlenecks, mainly related to database queries.

- I managed and provisioned servers (AWS), handled monitoring and application deployment.

Software engineer at Lemontech (March 2009 - May 2010)

Lemontech operated the Chilean Electronic Medical Leave web app, which provides online and secure communication of sensitive information between doctors, employers and insurance companies. It undergoes governmental audits and allows workers to query the status of their leaves.

I was in charge of a three-person team which developed and operated the web app; I mainly dealt with the legacy PHP codebase and MySQL databases, refactoring queries and implementing new modules. I also introduced Rails tools for automated deployment and database migration.

Freelance developer (since 2005)

I developed a Rails web application for automating the gathering of donations for an educational foundation. The app collects monthly payments from authorized donors' bank accounts and credit cards. I also developed a web app for supporting the yearly enrollment process of 1,400 students.

I currently maintain my own Sinatra web app (http://escaladenotas.cl) for assisting Chilean teachers and students with evaluation grading. It had 9.9 million sessions during 2019. I regularly answer user questions related to grading which sometimes leads to students' grades being amended.

Teacher and teaching assistant (March 2002 - February 2009)

I worked as a maths, physics and computer programming teacher at San Alberto High School for four years. I also was the teacher's assistant in fifteen separate instances for various computer science courses at the School of Engineering of the Pontifical Catholic University of Chile.

Education

Industrial Engineer with Computer Engineering diploma and academic certificate in Social Psychology (March 2000 - July 2006)

Pontifical Catholic University of Chile — Schools of Engineering and Psychology

Thesis: *"Development of distributed plugins as REST web services".*
Available in Spanish at http://pumarino.org/memoria.