

Juan Ignacio Pumarino

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Areas of expertise

- Main programming language: Ruby, since 2005.
 - Web development with Ruby on Rails, since 2006.
 - MySQL database development and administration, since 2006.
 - Front-end web development with jQuery, since 2009.
 - Amazon Web Services platform administration.
 - Web app scaling with HAProxy and Varnish.
 - Deployment automation and application monitoring.
 - Ubuntu/Debian server administration, since 2006.
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Areas of interest

Web services, containerization, functional/distributed programming, data warehousing, plugins, stochastic simulation, digital signal processing, MIDI.

Educational background

Industrial Engineer with Computer Engineering diploma (March 2000 - July 2006)

Pontificia Universidad Católica de Chile — School of Engineering

Thesis: *"Development of distributed plugins as REST web services"*

Available (in Spanish) at <http://pumarino.org/memoria>.

Academic Certificate in Social Psychology (March 2002 - July 2006)

Pontificia Universidad Católica de Chile — School of Psychology

Work experience

Software engineer at Scribd (since February 2015)

I've been a part of a team of around five people working on —mostly— backend systems and internal tools.

A teammate and I built a batch processing system from scratch (like Apache Airflow, before it existed), which orchestrates all of our data warehouse tasks, handling dependencies across dates (something Airflow lacks to this day) and facilitating recoveries.

I extended our ONIX 2 book metadata parser (the industry standard) to accept ONIX 3 submissions from publishers. I reworked the metadata integration with our audiobooks provider to handle a daily full catalog re-ingestion. I maintained our Go service which serves all of our dynamic images, which includes on-the-fly resizing and adding overlay icons.

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

Software engineer & founder at Binocular (October 2014 - March 2015)

I was part of team of two which developed a solution for customer Rebus, building its new platform for supporting on-site inventory management, moving away from a Visual Basic application towards a web-based Rails solution.

The main challenges were understanding the business logic hidden in the legacy solution and then consider the particular use cases for people on the field, who needed to get data from barcode reader machines and give detailed, accurate and fast reports regarding unit count and money valuation.

Lastly, we trained a three-person team which had no prior Rails experience to help during the development phase and do further maintenance.

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

I was part of a four-person team, working side-by-side with the CTO. As the team grew, we split the team it into smaller ones. In 2012, I took over the role of CTO, in the middle of an aggressive expansion of the company into Brazil.

In terms of technology, I did aggressive refactoring, tackling performance bottlenecks and dealing with poorly structured code.

I did web service development (our commercial activities depended on real-time communication with insurance and financial companies). I set up home-grown telephony integrations to provide our agents with instant phone communication with customers.

Finally, I did servers (AWS) administration, provision, monitoring and application deployment.

Software engineer & Team lead at Lemontech (March 2009 - May 2010)

I was in charge of the team which developed and maintained the Electronic Medical Leave web application. The main responsibility of this app is to streamline the process of communicating mandatory medical leaves between health professionals, employers and health insurance companies, while providing auditing capabilities for government organizations.

Lemontech is a software workshop, we were a three-person team there and worked directly with the client and owner of the app, I-Med. I mainly dealt with the legacy PHP backend codebase and MySQL databases, refactoring a lot of the code and implementing new modules. I also developed tools for automated deployment and monitoring.

Freelance developer (since 2005)

I developed and supported a Rails web application for automating the gathering of donations for an educational foundation. Donors signed documents allowing the foundation to collect monthly payments from their bank accounts or credit cards. The web application automated and provided security for this process.

I also developed for the same foundation a Rails web app for supporting the process of enrollment of 1,400 students. This process took place once a year.

I developed an Adobe Flex interactive app for the simulation of wiring diagrams and floor plans. It was used as part of an educational software suite called Construeduca at DUOC UC, a higher education institution.

I was part of a team of three, designing and developing a Rails app for the managing sport leagues and tournaments. It was intended as a social app, called Pelotea! and later Jokoplay.

I also maintain my own web app for assisting Chilean teachers with evaluations grading, available at <http://escaladenotas.cl>.

Teaching experience

High school teacher at Colegio San Alberto (August 2005 - February 2009)

I worked as a maths, physics and computer programming teacher of high school students.

Teaching assistant at the School of Engineering, P. Universidad Católica de Chile (2002 - 2005)

I was the teacher assistant in fifteen separate instances for the following courses: Discrete Mathematics, Advanced Programming, Automata and Formal Languages Theory, Databases, Artificial Intelligence, Software Engineering, Data Structures and Representation, Stochastic Simulation and Web Development Workshop.