

Rafael Polo

Software Engineer & Consultant with 20 years of experience on IT projects



Personal

First name: Rafael
Middle name: Gomes de Oliveira
Last name: Polo
Age and birthday: 39 years old, 13 June 1985
Marital Status: Single, no children
Citizenship: Portuguese and Brazilian
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Formal Education

- **Postgraduate in Data Science for Finance** – 2021
NOVA Information Management School, Lisbon
- **Master in Information Systems** – July 2010 to July 2012
Research Area: Knowledge Representation and Reasoning, PPGI/UNIRIO
- **Bachelor in Computer Science** – July 2003 to July 2009 [[diploma](#)]
Thesis: Agile Systems Development for Web 2.0 with Ruby on Rails

Fundamental Courses

- **Extension in Digital Culture** – 2010
Communication School, ECO/UFRJ
- **Java Software Development** – 2006 ~ 2007
Department of Electronic Computation, NCE/UFRJ
- **Open Source Software Workshop** – 2005
Fundação Educacional Serra dos Órgãos
- **Linux System Engineer** – 2004
M.Cury Computação – Rio de Janeiro, Brazil
- **Visual Basic Programming** – 1998
Index Informática – Nova Friburgo, Brazil

Relevant Skills

- System Analysis & Modeling with UML
- MVC System Architecture, Design Patterns & Object-Oriented Programming
- Data Engineering, Data Science, Relational Databases & SQL
- Distributing and Scaling Processes with Message Queues
- Developing Web Crawlers & Bots for Data Mining & ETL
- Linux Systems, VPS, DevOps, SSH & Deploy with Continuous Integration processes
- Full Stack Developer & Front-end Web Design with HTML, CSS and Javascript frameworks
- **Multidisciplinary approach.** Projects with linguists, designers, journalists, economists, artists...

Relevant Professional Experience

- **Swisscom** – *actual* – Zürich, Switzerland
DevOps Engineer developing platforms for telecommunication Operations
- **EDGE Strategy** – 2023 – 1y – Zug, Switzerland
Senior Tech Lead managing projects and external UX & Dev Teams for a SaaS Company
- **Code+Create School + Khora Community Center** – 2017~2018 – Athens, Greece
Web Development Teacher – 30 diverse students on Linux, Javascript, HTML, CSS
- **Tactical Tech Collective** – 2014~2016 – Berlin, Germany
Senior Ruby on Rails Developer for a NGO under the Exposing the Invisible Team.
- **Trommsdorf + Drüner** – 2013~2014 – Berlin, Germany
Full-stack Engineer – Innovation Team developing Business Intelligence dashboards
- **Cortex Intelligence** – 2007~2008 – Rio de Janeiro, Brazil
Developer in the Competitive Intelligence and Data Mining Team
- **MeuServidor** – Co-founder – 2002~2003 - Nova Friburgo, Brazil
Co-founder of a Web Hosting Server Company in Brazil based on Linux & PHP

ExtraPolo! – own Agency

Since 2008 Rafael Polo has worked as an independent Software Developer and IT Consultant, developing more than 35 Software Projects for public and private contractors in Brazil, Germany, Greece and Switzerland - also publishing different purpose tools, bots, database mappings and visualizations.

Main Technologies

- Ruby on Rails (RoR), ActiveRecord, Kafka, Redis, Sidekiq, nokogiri, debug...
- Development Environment: Linux, Git, Zsh, Tmux, Screen, SpaceVim...
- Regular Expressions, RabbitMQ, Web Services, JSON, REST & APIs integration.
- Databases: MySQL, MongoDB, PostgreSQL, Clickhouse & GraphQL.
- Processing.org Media Framework, ffmpeg, imagemagik, convert...
- Javascript frameworks: D3js, jQuery, Vue.js + Data Visualization libs
- Projects developed in Ruby, PHP, Python, Java, Crystal, Typescript, Pascal and Bash.

Natural Languages

- Native Brazilian Portuguese
- Advanced Spoken Spanish
- A2 level Greek – **3 years in Athens**
- A2 level German – **4 years in Berlin and Zürich**
- Fluent English – **12 years in between international groups**

Selected self-initiated Projects

- [Tribuna](#) – 2018 – This software corrects, integrates, structures and optimizes all Brazilian Electoral Supreme Court's Electoral Repository Data of candidates and votes into a single queryable relational database to facilitate further investigations & data-visualizations of public money flows on politicians.
- [Steganos](#) – 2014 – Ruby algorithm to encode & decode any digital file into an image, and vice versa.
- [Rastros](#) – 2012 – Written using the Processing.org Media Framework. Traces, in English, is an open-source software project that enables real-time detection and manipulation of movements in beautiful ways.
- [Mostre!me Cultura](#) – 2011 – Full-stack platform as an Experimental Culture & Communication system, exposing with many filters and data visualization all Brazilian Ministry of Culture data-mined financed nation-wide cultural projects of 10 years.
- [Mostre!me Links](#) – 2009 – Ruby on Rails system – still used in Brazil – to simply & quickly generate URL shortcuts. Launched before bit.ly, it offers a dashboard to monitor clicks & referrers.
- [Consulta Natural](#) – 2009 – Ruby implementation of the 'Natural Language Query System for RDF Repositories' paper from Nokia Research Center Cambridge, 2007, applied to a Google Talk agent.
- [Chat-RSA](#) – 2008 – ChatRSA is a Privacy Software written in Java which provides automatic RSA encryption and decryption chat messages using basic TCP/IP connections.

Fellowships & Grants

- ***Celo Community Fund*** – Blockchain – 2021
Granted for a 1-year R&D on Brazilian Stable Currency on Celo Blockchain.
- ***Zcash Community Fund*** – Blockchain – 2020
Granted for a 2-months Proof-of-Concept integrating Brazilian BRL Fiat.
- ***WebDoc Graffiti Platform*** – Full-Stack Platform - 2012
Collaborative Cartographies Initiatives by Brazilian Federal Ministry of Culture
- ***Dammatio Memoriae*** – SoftwareArt – 2011
Award by Memefest - International Festival of Social Responsive Communication
- ***Fellowship for Postgraduate Research*** – 2010
By Brazilian Federal Ministry of Education, CAPES