

# RAIMON GRAU

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@Barcelona OR @Tenerife ◇ Spain

## EDUCATION

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**Facultat Informatica de Barcelona (UPC), Barcelona**

*January 2010*

B.S. in Computer Science

Final thesis on Evolutionary Algorithms graded with Honours.

## EXPERIENCE

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**Metabase Inc - <https://metabase.com>**

Jan 2021 -

*Software Engineer, Tech Lead*

*Remote*

- Maintenance of Cloud application management system for 1k+ services. Managing signups, updates, snapshots...
- Design, program and maintain billing system for 2000+ with custom flows, grace periods, plans, etc...
- Update cloud service for soc2 compliance (multi-az, encrypted dbs, etc.). Clojure, AWSLambda, Postgres, Terraform.
- Improve ETL system, take it from 10h to 2h while reducing code over 60%. Python, AWS.
- Migration of 1000+ cloud service from AWS ECS to K8s (EKS). Clojure, AWS, k8s.
- Sample data generator for a db schema, producing plausible complete databases for stress tests, and generating of demo scenarios. Using a graph traversing algorithm to create foreign keys from the bottom up.
- Relevant Books: Designing Data Intensive Applications, K8s Up & Running, Philosophy of Software Design, Most Clojure literature, Chaos.

**Kong Inc - <https://konghq.com>**

February 2018 -

*Software Engineer, Tech Lead*

*Remote*

- Designing features for the enterprise grade customers of Kong. Usually higher traffic and custom flows that do not apply to the opensource product. LuaJIT
- Design and implement a data collection tool from request logs. Sanitizing and anonymising data, triggering jobs for processing that data for several purposes (ML, logs, docs, service discovery). Python, Flask, PG, Celery, Docker.
- Design and implement collector for generating an OpenAPI spec from real traffic seen from live request/reponse pairs. Organizations have running systems they don't know how they work or what they use. Imagine a way to draw the spec from real traffic, with 0 configuration. Python.
- Redesign branching and merging strategy for better integration of teams companywise. Go from a manual cherrypicking model to a consolidated strategy where every developer is able to merge and produce releases of products.
- Managing Releases for Enterprise Kong product. Increasing the cadence of releases and smoothing the CI/CD pipeline to make easier for newcomers to cut releases, debug packages, etc. Jenkins, docker, and Bash. Lots of Bash.
- Relevant Books: Turn the Ship Around, Release It!, Peopleware, The Mythical Man-Month, Deep Work, The Art of Postgresql.

**RavenPack International - <https://ravenpack.com>**

June 2016 - August 2017

*Software Engineer, Common Lisp Developer*

*Marbella, Spain*

- Modernizing a 10 y.o Common Lisp codebase, adding a test suite and a build system for it migrating it into continuous integration.
- Refactoring of an old application for performance and maintainability. Halved the number of lines with better performance while improving correctness along the way.
- Writing a streaming api for advanced filtering of information (think twitter firehose with more advanced filters). Using Common Lisp for backend and Nginx+Nchan for the distribution. Delivering 2.5M unique events per day.
- Improving a REST API performance by using worker queues when possible in different parts of the system. Using both internal in-memory queues and AWS SQS. Common Lisp + Python.
- Relevant Books: SICP, Object Oriented Reengineering Patterns, The Unix Programming Environment, Patterns of Artificial Intelligence Programming, The Information (Gleick), On Lisp.

**3scale, Inc** - <http://www.3scale.net/>

*Software Engineer, Team Lead*

July 2011 - June 2016

*Barcelona, Spain*

- Maintaining and Developing a +200k lines Ruby on Rails application to manage API authentication and rate limitings. Team lead since 2014.
- Develop a code generator to create Nginx Lua configurations from rules introduced by the users. Also run nginx on cloud to host these configurations. Developed in Ruby, Lua, Nginx and Redis.
- Work in an Nginx+Lua solution to cache calls to external apis to reduce the outbound traffic and be able to not get hit by rate limits (500rps). Highly concurrent calls and heavy redis usage. Lua, Nginx and Redis.
- Trie based router for api request routing. cost:  $O(\text{current\_route.length})$  instead of  $O(\text{total\_routes.length})$ .
- Relevant Books: SICP, Ruby Metaprogramming, GodelEscherBach, Refactoring.

## SKILLS

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Programming Languages enthusiast. Working experience with Clojure, Lua, CommonLisp, Ruby, Perl, Python, Bash, a bit of js & ts. Hobbist experience with Smalltalk, Elisp, Elixir, Rust, Go, Nim...

Working experience with REST, Postgres, Docker, sqlite, Redis, MongoDB, Redshift, Oracle, Cassandra, development&productivity tools like deep knowledge of Shell, Tmux, Vim, Emacs, git, Openresty (nginx+lua), Nix. Experience on elasticsearch, Redis, Statsd + Graphite + Grafana, AWS (experience with dynamodb, ec2, s3, cloudwatch).

Passionate learner, and willing to transmit enthusiasm for learning technologies and balance them with the current stable stack. I'm quite cautious on "The next big thing" hypes (there is no silver bullet), and like to usually keep things very simple (<http://suckless.org>). I believe simplicity and uniformity sometimes wins 'the perfect tool for the job' x number-of-jobs approach.

Good communication skills and enthusiast teacher & learner.

In my past life I used to be into reverse engineering software. Most of it is outdated now, but my approach to problem solving stayed.

I have a wide variety of interests from Live Programming (Lisp, Smalltalk), machine learning, compilers, blockchain technologies...

I love attending small conferences. And try to attend at least 1 conference per year as a healthy industry catchup measure.

Opensource contributor. Contributions to several projects like emacs, ripgrep, Nix, and several Emacs modes.

## PERSONAL

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I love music (from rock and jazz to funk and psy ...)

Reading is another passion of mine. Check out what I'm up to at <https://www.goodreads.com/user/show/69378962-raimon-grau>.

I used to play Guitar and bass guitar. Self taught, not practicing much anymore...

I blog in <http://puntoblogspot.blogspot.com> since 2008. Sharing mostly technical stuff. Lately I moved some of the writting to <https://raimonster.com>

I currently live in Tenerife.

A complementary CV is on <https://github.com/kidd/Me>