Daniel Martins

Software Engineer ⋆ Open Source Enthusiast ⋆ Guitarist

Rio de Janeiro, Brazil
📞 *+55 (21) 99138-0100*
✉ *daniel.tritone@gmail.com*
⤶ *danielfm.me*
 danielfm
 danielfmartins

Objective And Qualification Summary

- Software engineer focused on backend systems, cluster management, operating systems, infrastructure, and related areas
- Solid experience in writing, deploying, and maintaining cloud-native applications
- Passionate about real-world high scalability problem solving
- Experience acting as a lead engineer in small teams

Technical Skills

- **Languages**: Go, JavaScript, Bash, Ruby, Python, Lua, Java, Clojure, Matlab, C
- **Web Frameworks**: Rails, Sinatra, Express.js, Django
- **Web Servers**: NGINX, Unicorn, Puma
- **Infrastructure as Code**: Terraform, Puppet, Capistrano, Fabric, Ansible
- **Monitoring**: Grafana, Graphite, InfluxDB, Prometheus/AlertManager
- **Container Technology**: Kubernetes, Tsuru, Docker, Rkt, Container Linux
- **IaaS/PaaS**: AWS, DigitalOcean, Heroku
- **Databases**: MongoDB, Redis, Postgres, Cassandra, MySQL

Recent Open Source Contributions

- **kubernetes/kubernetes**: Production-Grade Container Scheduling and Management
  - PR #48707: Allow nodes to create evictions for its own pods in NodeRestriction admission controller
- **kubernetes-incubator/kube-aws**: Kubernetes on AWS with Container Linux
  - I'm part of the core team and active contributor, with several merged contributions
- **kubernetes/ingress-nginx**: Ingress controller for NGINX
  - PR #1238: Add support for `client_body_timeout` and `client_header_timeout`
- **kubernetes/charts**: Curated applications for Kubernetes
  - PRs #533 and #535 for Prometheus

Open Source Projects Summary

- **danielfm/kube-ecr-cleanup-controller**: ECR image cleanup controller for Kubernetes
  - Controller written in Go that deletes old Docker images from whitelisted ECR repositories
  - It takes care not to delete images that are currently running in the cluster, and images tagged with `latest`
- **danielfm/pybreaker**: Circuit Breaker implementation for Python
  - Typically used in API clients in order to prevent cascading failures across multiple systems
  - Used by Globo.com, AppNeta, Amplify, SeatGeek, and others
  - Used to safeguard one of Globo.com's the most accessed internal APIs, with tens of thousands of req/minute
- **xmlrunner/unittest-xml-reporting**: Test results exporter for Python
  - XML file format supported by all major CI servers and build systems
  - Used by Khan Academy, Globo.com, and others
- **danielfm/bencode**: BitTorrent encoding implementation in Clojure
  - Parses bencoded strings directly to Clojure data structures and vice-versa
  - Features a threadpool-based parallel piece hashing implementation that can handle tens of GiB of data

Professional Experience

Jun. 2015 - Present

Software Engineer, *Descomplica*, Rio de Janeiro/RJ.
- Streamlined infrastructure management by implementing an automated pipeline (on top of Jenkins and Terraform) for reviewing and applying infrastructure changes
- Set up monitoring and alerting at different layers (on top of Prometheus and AlertManager) with comprehensive documentation on how to mitigate and resolve all currently known failure modes
- Migrated all critical services from AWS Beanstalk to Kubernetes, significantly cutting infrastructure costs due to better resource utilization
- Implemented a generic Continuous Delivery pipeline on top of Helm, Jenkins, and AWS Lambda that enables a small development team to push several changes to production every day
- **Technologies got to work on**: Go, JavaScript, Kubernetes, AWS, NGINX, and many others

Dec. 2010 - May 2015

Software Engineer, *Globo.com*, Rio de Janeiro/RJ.
- Worked on the Live Video Streaming Platform, a distributed architecture for live video ingest and delivery capable of broadcasting dozens of live streams to hundreds of thousands of users
- Delivered Globosat Play, a software platform that provides cable TV subscribers access to the video content licensed in Brazil by Globosat
- Delivered Combate Play, a website where Combate channel subscribers enjoy instant and unlimited access to a constantly updated collection of fights
- Worked on 2012's Big Brother Brasil broadcasting page, which would then become a platform for publishing live video transmission pages (used in several ocasions ever since, like the UFC fight nights, Sochi Olympics, etc)
- Worked on globo.tv, a video-on-demand portal that organizes both free-to-watch and paid content produced by Globo
- Worked on the current version of the Video Catalog, which consists of a CMS and a pluggable application for offering video-on-demand content
- Delivered the first version of VideoThumbs, an API that serves dynamically resized and cropped video thumbnails
- **Technologies got to work on**: Ruby, Python, Lua, Redis, MongoDB, Cassandra, NGINX, and many others

Jan. 2008 - Dec. 2010

Consultant, *Freelancer*, Ourinhos/SP.
- Worked as an instructor for a SCJP 1.5 course to a class of a dozen students for local development shop
- Delivered custom CRM system for a local real estate company that organized all brokers' activities, prospects, and kept track of sales goals
- Delivered a basic multilingual e-commerce website for a local real estate company
- Wrote a web-based user permission management tool for a client's legacy database, which were already being used by several internal applications
- **Technologies got to work on**: Java, Python, Oracle, MySQL

Jun. 2004 - Sep. 2006

Programmer, *Plasútil, Lecom*, Bauru/SP.
- Eliminated severe performance bottlenecks on one of their most critical product
- Wrote a few small Java applications for data exchange and data synchronization
- Developed a new Warehouse Management System to replace the old Dataflex-based legacy system
- Wrote the first version of their Intranet application during my internship
- **Technologies got to work on**: Java, ASP, Informix, MySQL,PHP, .Net (C#, WinForms), Oracle

Education

2003 - 2006 **Bachelor, Computer Information Systems**, *Faculdade Gennari & Peartree (FGP)*.

2000 - 2002 **Technical School, Computer Programming**, *Liceu Noroeste*.

Courses and Certifications

Mar. 2017 **LFS258: Kubernetes Fundamentals**, *Linux Foundation*.

Dec. 2013 **CS1156X: Learning From Data**, *CaltechX*.

Dec. 2011 **Intro to Machine Learning**, *Coursera*.

Feb. 2007 **SCWCP: Sun Certified Web Component Developer 1.4**, *Prometric*.

Featured Articles

Sep. 2017 **Pain(less) NGINX ingress**, *Personal Website*.
Post reached #6 in HackerNews

Sep. 2016 **Five Months of Kubernetes**, *Personal Website*.
Post reached #4 in HackerNews

Conferences

Nov. 2016	**KubeCon**, Seattle/WA, USA.
Sep. 2014	**Strange Loop**, St Louis/MO, USA.
Feb. 2013	**Strata**, Santa Clara/CA, USA.
Jun. 2012	**Velocity**, Santa Clara/CA, USA.