

# Eduardo Mucelli | Software Engineer

Paris – France



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## Education

### École Polytechnique

Computer Science, Ph.D

France  
October 2011 — May 2015

### Federal University of Minas Gerais

Computer Science, Master's degree

Brazil  
March 2009 — July 2011

### Pontifical Catholic University of Minas Gerais

Computer Science, Bachelor's degree

Brazil  
August 2004 — August 2008

### Ph.D thesis

**Title:** *From Your Routine to Better Network Services* [🔗](#)

**Supervisor:** Aline C. Viana [✉](#)

**Description:** Investigated characteristics of human mobility and their impact on the network data traffic, planning and deployment. I've analyzed large-scale datasets from mobility and traffic demands generated by millions of users. Python's multiprocessing, thread and R multi-core libraries were used to summarize and assess massive amounts of data.

**Results:** Published 5 conference papers, 2 journal papers, and a created a data traffic simulator.

## Professional Experiences

### BlaBlaCar

Software Engineer

Developing features, optimizing performance, deploying to production and monitoring a dozen of Java services at the Trip Search team. For example, meeting points service to provide drivers and passengers where to meet using Machine Learning recommendation. Routing service based on OSRM to fastly calculate routes at user search time to match drivers and passengers with the smallest possible detour. Mainly technologies are Java, XGBoost, R, Python, OSRM, PostgreSQL, PostGIS, MySQL, Elasticsearch, Redis.

France  
July 2016 – Present

### Orange

Postdoctoral Researcher

Developed machine-learning assisted techniques to predict users' QoE based on network's KPIs.

France  
June 2015 – June 2016

### Dito Internet

Software Engineer

Developed in Ruby on Rails, as part of a team, Telecom Italia Mobile's project called TIM Beta, [timbeta.com.br](http://timbeta.com.br).

Brazil  
July 2011 — September 2011

### Telecom Italia Future Centre

Intern

Developed, in Python, a project called Future of Enterprises aiming to improve the real-time interaction among employees.

Italy  
November 2010 — May 2011

### Task Internet

Systems Analyst

Lead developer of a social network in Ruby on Rails.

Brazil  
February 2008 — February 2009

## Full-stack, Android and iOS side-project applications

**Rosto.io** – <https://www.rosto.io>

Python, Keras, Tensorflow, Ruby

Full-featured face recognition SaaS. It provides face detection features such as age, gender, emotion, ethnicity, landmark, glasses, smile, hair segmentation and much more. All based on end-to-end machine learning models written in Keras and Tensorflow. It runs on top of Flask, Rails, Nginx, Docker all monitored with Prometheus and Grafana.

**Eazy.bike** – <http://eazy.bike>, [Android app](#), [iOS app](#)

Ruby, Python, Java (Android), Swift (iOS), Javascript

It finds the best bike-sharing cycling routes in more than 443 cities distributed in 45 countries. It uses real-time information of bike availability and proximity to predict the best stations to pick-up and drop-off. The Android and iOS apps provide automatic trajectory redirection whenever destination station fills up during user's ride. It can be accessed by city-specific domains for improved context information, e.g., [paris.eazy.bike](#), or [london.eazy.bike](#), etc.

**Proconfie** – <http://www.proconfie.com>

Ruby, Python, R

It helps people to choose companies based on complains presented by other customers. Received Honorary Mention award from the Brazilian Ministry of Justice. Refer to the [Awards](#) section for further information.

**CEP Aberto** – <http://www.cepaberto.com>

Ruby, Python, Javascript

Collaborative application that aims to publicly open the Brazilian Postal Code (CEP) data. Contains information of about 1 million CEPs. It provides an API for developers and, for the end-users, a collaborative platform to improve the quality of the data. About 30K registered users.

## Skills

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**Language:** Java, Python, Ruby, R

**Framework:** Springboot, Flask, Ruby on Rails

**Machine learning:** Keras, Tensorflow, Caret, XGBoost

**OS:** Linux

**VCS:** Git, Subversion

**DB:** MySQL, PostgreSQL (PostGIS), Redis, Elasticsearch

## Recent publications

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- Lin, Yu-Ting and Oliveira, Mucelli Rezende Oliveira, Eduardo and Ben Jemaa, Sana and Eddine Elayoubi, Salah., “*Machine Learning for Predicting QoE of Video Streaming in Mobile Networks*”, IEEE ICC Communication QoS, reliability and modeling symposium, May 2017.
- Oliveira, Eduardo Mucelli Rezende and Carneiro Viana, Aline and Naveen, K. P. and Sarraute, Carlos., “*Mobile Data Traffic Modeling: Revealing Temporal Facets*”, Elsevier Computer Networks, November 2016.
- Oliveira, Eduardo Mucelli Rezende and Carneiro Viana, Aline and Naveen, K. P. and Sarraute, Carlos and Brea, Jorge and Alvarez-Hamelin, Ignacio., “*On the regularity of human mobility*”, Elsevier Pervasive and Mobile Computing, May 2016.

## Languages

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**Portuguese:** Native speaker

**French:** Fluent

**English:** Fluent

**Italian:** Advanced

## Some Open Source Projects

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**Twitter applet** – [Code !\[\]\(a73c1962d20a39dd8fd6a060ae69693f\_img.jpg\)](#)

Twitter applet for Cairo-Dock which handles most of Twitter’s API features, including streaming.

**WebSearch applet** – [Code !\[\]\(a8ff699ced33317c53c86f9bf3171905\_img.jpg\)](#)

Metasearch applet for Cairo-Dock capable of retrieving text and image results from several sources, e.g., Google, Bing, Yahoo!, Youtube, and Twitter.

**Repeat One Song** – [Code !\[\]\(aceb1790ece33f2eac474d4a9431c6d6\_img.jpg\)](#)

The Repeat One Song feature for Rhythmbox.

**Translator** – [Code !\[\]\(26cddea01ddf7f002af4ba779c4999ee\_img.jpg\)](#)

Full-featured Google Translator-based translator applet for Cairo-Dock.

## Awards

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### Honorary mention

*Brazilian Ministry of Justice*

*May 2013*

Open Data Applications Contest. Lead developer of a Ruby on Rails application called Proconfie. Refer to section [Full-stack, Android and iOS applications](#) for more details about this application.

### Silver Medal

*Pontifical Catholic University of Minas Gerais*

*July 2008*

Second best overall score during the bachelor.

### Honorary mention

*Pontifical Catholic University of Minas Gerais*

*May 2007*

For the work “*Game Theory for Decision Making in Wireless Sensor Networks*” presented in the 15<sup>th</sup> Sciences Seminar.