

# JUAN LOPES

## SOFTWARE ENGINEER

📍 Rio de Janeiro, Brazil

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🌐 juanlopes.net

🔗 github.com/juanplopes

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## EXPERIENCE

### Lead Software Engineer, R&D

#### Intelie, a RigNet Company

📅 Aug 2011 – Ongoing (8 yrs 5 mos) 📍 Rio de Janeiro / Houston / London

- Key person in the product division, leading a small team of very specialized professionals;
- Responsible for the Core Platform roadmap and implementation;
- Accomplishments:
  - Pipes, an event stream processing language ([pipes.intelie.com](https://pipes.intelie.com));
  - Distributed event stream query engine;
  - Extensive use of probabilistic algorithms and data structures;
  - Processing up to 3TB of streaming data, per day, per cluster;
  - JVM performance tuning and instrumentation;
  - Delivering a Platform used by teams spread across 4 countries.

### Software Engineer

#### Living Consultoria

📅 Dec 2007 – Aug 2011 (3 yrs 8 mos) 📍 Rio de Janeiro

- Delivered projects for several customers around the globe, with great focus on billing solutions;
- Member of the architecture committee;
- Wrote the company's web framework in C#.

### Software Engineering Intern

#### Biologica Sistemas

📅 Feb 2007 – Dec 2007 (11 mos) 📍 Rio de Janeiro

- Responsible for a Java-based webservice for batch biometric authentication, integrating with C++ code;
- Maintainer of a UI written in C# for biometric capture, that was used in large-scale public tenders in Brazil.

## EDUCATION

### Ph.D. in Systems Engineering and Computer Science

#### Federal University of Rio de Janeiro

📅 Jun 2017 – Ongoing, GPA: 4.0

Ongoing: researching graph stream algorithms

### M.Sc. in Computational Sciences

#### State University of Rio de Janeiro

📅 Mar 2014 – Mar 2017, GPA: 3.8

Probabilistic data structures applied to implicit graph representation

### B.Sc. in Informatics and Information Technology

#### State University of Rio de Janeiro

📅 Jan 2006 – Aug 2013, GPA: 3.0

## MOST INTERESTED IN

*I love algorithms & data structures, software optimization, and compilers. I enjoy bridging the gap between theoretical and applied computer science through code.*

## MOST PROUD OF



### Miguel

My beloved son.



### QConSP Program Committee

QCon is a prestigious international software conference. Since 2019, I have been in charge of the Computer Science track in the São Paulo edition.

🌐 [qconsp.com/sp2020/track/ciencia-da-computacao-no-mundo-real](https://qconsp.com/sp2020/track/ciencia-da-computacao-no-mundo-real)



### Master's Thesis Award

My master's thesis "Probabilistic data structures applied to implicit graph representation" was chosen as one of the top 9 theses of 2017 by the Brazilian Computer Society.

🌐 [sol.sbc.org.br/index.php/ctd/issue/view/233](https://sol.sbc.org.br/index.php/ctd/issue/view/233)



### Competitive Programming

I really enjoy programming contests. In the IEEEExtreme, I have once won a 1<sup>st</sup> place in Brazil (2013) and 34<sup>th</sup> place worldwide (2014). In the ICPC, I was five times South-American finalist. My most popular GitHub repository is a collection of problems solved in my early training years.

🔗 [github.com/juanplopes/icpc](https://github.com/juanplopes/icpc)



### StackOverflow reputation

I have a 9k+ reputation on StackOverflow, which is not a huge number, but this still makes me proud, given I mostly answer questions in the not-so-popular [algorithm] tag.

🌐 [stackoverflow.com/users/1327235](https://stackoverflow.com/users/1327235)



### Recent work

I have recently been fiddling with JVM introspection and object size estimation.

🔗 [github.com/intelie/introspective](https://github.com/intelie/introspective)

Using that library, I have managed to create an aggressively optimized implementation of java.util.Map:

🔗 [github.com/intelie/tinymap](https://github.com/intelie/tinymap)