

JUAN LOPES

SOFTWARE ENGINEER

📍 Rio de Janeiro, Brazil

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🌐 juanlopes.net

📄 github.com/juanlopes

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EXPERIENCE

Staff Software Engineer, Game Server

Zwift

📅 Jun 2020 – Ongoing (2 yr 6 mos) 📍 Rio de Janeiro / Long Beach

- Rewrote the spatial index data structure, increasing the throughput of k-nearest neighbors queries in more than 800%;
- Implemented locality-based UDP partitioning strategy, greatly increasing scalability of the Game Server.
- Created several tools to aid testing both the Game Client and the Game Server, greatly increasing engineers' productivity.

Lead Software Engineer, R&D

Intelie

📅 Aug 2011 – May 2020 (8 yrs 9 mos) 📍 Rio de Janeiro / Houston / London

- Responsible for the Core Platform roadmap and implementation;
- Created Pipes, a stream processing language (🌐 pipes.intelie.com).

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;

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;

EDUCATION

Ph.D. in Systems Engineering and Computer Science

Federal University of Rio de Janeiro

📅 Jun 2017 – Jan 2020, GPA: 4.0 – Incomplete, ABD

Completed regular course, but did not finish the dissertation. Researched probabilistic streaming graph representations.

M.Sc. in Computational Sciences

State University of Rio de Janeiro

📅 Mar 2014 – Mar 2017, GPA: 3.8

Researched 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



Master's Thesis Award

The 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



StackOverflow Rep. in [algorithm]

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

🌐 stackoverflow.com/users/1327235



Competitive Programming

I really enjoy programming contests. In the IEEEExtreme, I have once won a 1st place in Brazil (2013) and 34th 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/juanlopes/icpc



QCon SP Program Committee

QCon is a prestigious international software conference. After many years as a regular speaker, in 2018, I was invited to be part of the Program Committee, hosting the Computer Science track in São Paulo edition.

🌐 qconsp.com/sp2020/track/ciencia-da-computacao-no-mundo-real



Other work

I have recently been fiddling with JVM introspection and heap overhead.

📄 github.com/intelie/introspective

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

📄 github.com/intelie/tinymap