

JUAN LOPES

SOFTWARE ENGINEER

📍 Rio de Janeiro, Brazil

@ me@juanlopes.net

🌐 juanlopes.net

📄 github.com/juanlopes

📅 September 27, 2021

EXPERIENCE

Senior Software Engineer, Game Server

Zwift

📅 Jun 2020 – Ongoing (1 yr 4 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.

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;
- Member of the architecture committee.

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 – Jan 2020, GPA: 4.0 – Incomplete

Completed regular course, but did not finish the dissertation.
Researched probabilistic graph representations and stream algorithms.

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



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



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



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



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



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