

# Jalerson Lima, MSc

## Fulltime Professor of Software Engineering

### Remote Education Campus

#### Federal Institute of Education at Rio Grande do Norte

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## Summary

Fulltime Professor of Software Engineering at the Federal Institute of Education at Rio Grande do Norte. Senior Web Developer, Project Leader and Researcher at the Laboratory of Technology Innovations in Healthcare. Master in Systems and Computing at the Federal University of Rio Grande do Norte.

## Research Interests

**Software Engineering:** Empirical software engineering, collaboration-based software development, software developers' productivity assessment, mining software repositories; **Classroom and Remote Education:** Computer programming, software engineering concepts and practices; **Informatics in Healthcare and Data Science.**

## Experience

### Federal Institute of Education at Rio Grande do Norte – Natal, Brazil

Fulltime Professor of Software Engineering

2010 – Present

Since 2010, I'm a fulltime professor of software engineering, software programming and computer basics at the Federal Institute of Education at Rio Grande do Norte (IFRN). In these six years as professor, I had the opportunity to teach thousands of students, conduct research and educational projects, and supervise students in their projects and so on.

I have experience on teaching programming introduction and algorithms using structured-Portuguese languages, Java, Ruby and Python. As professor and developer, I am always trying to figure out better ways to teach programming skills to my students, using, for example, educational tools with this purpose like Robocode, Scratch, Codecademy, etc.

However, I also have experience on more complex subjects, teaching my students on how to build their own software and web-based applications using modern software languages like Java, PHP, Ruby and Python, using modern MVC frameworks like Ruby on Rails, CodeIgniter, CakePHP, and using modern databases like MySQL and PostgreSQL.

Between 2010 and 2014, I was a classroom teacher, but in 2014 I accepted the challenge to teach remotely at the Distance Education Campus. In these two years I have figured that it is more challenging teaching remotely than presently, but it's possible to reach more students through remote education.

### Laboratory of Technology Innovations in Healthcare – Natal, Brazil

Researcher and Web Developer

2012 – Present

Currently I'm also a researcher of Informatics in Healthcare at the Laboratory of Technology Innovations in Healthcare (LAIS), one of the most prestigious Brazilian research centers in public healthcare. As researcher and web developer, I had the opportunity to work in two projects: Telepediatrics and Dengue National Observatory, both patented.

Telepediatria is a web-based system to support non-specialist doctors in pediatric appointments, allowing the discussion of cases with remote medical specialists. This project got the attention from Brazilian pediatric specialists when it presented on the Brazilian Conference of Pediatric Endocrinology and Metabolism, due to its valuable features to support non-specialist and specialist doctors in pediatric appointments, as well as giving support to cases discussion and medical research.

I also had the opportunity to work on the Dengue National Observatory, which is a web-based system to support public healthcare agents to track cases and proliferation spots of the *Aedes Aegypt* mosquito. The AFP News Agency made a video showing the system working: <http://youtu.be/kWvvhHXv-7o>.

## **Federal University of Rio Grande do Norte – Natal, Brazil**

Researcher and Master's degree student

2011 – 2014

During 2011 to 2014, I was a Master's degree student and researcher at the Federal University of Rio Grande do Norte. During this time, I conducted researches in Software Product Lines, Software Metrics and Productivity Assessment. During 2014, I worked as researcher of individual productivity assessment on the university's Software Development Department, producing individual software contribution reports based on mining repository-based metrics.

At the end of 2014, I defended my master's degree dissertation, entitled "An Approach to Support Software Managers to Analyze the Developers' Contribution", which I conducted interviews with project leaders to analyze the usefulness, strengths and weaknesses of repository mining-based metrics. The outcomes of this research produced a paper entitled "Assessing Developer Contribution with Repository Mining-Based Metrics", which was published, in 2015, on the 31<sup>st</sup> International Conference on Software Maintenance and Evolution (ICSME'2015) at Bremen, Germany.

## **Education**

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### **Master of Science in Systems and Computing**

Federal University of Rio Grande do Norte – Natal, Brazil

2012 – 2014

### **Specialist in Systems Engineering**

Open Superior School of Brazil – Vila Velha, Brazil

2008 – 2010

### **Bachelor of Science in Software Development**

Federal Institute of Education

2004 – 2007

## **Publication**

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### **Assessing Developer Contribution with Repository Mining-based Metrics**

Jalerson Lima, Christoph Treude, Fernando Figueira, Uirá Kulesza

*31st International Conference on Software Maintenance and Evolution (ICSME), 2015*

### **Development of a system to support pediatric diabetic patients using Brazilian Remote Healthcare Program**

Ricardo Arrais, Jalerson Lima, Jailton Carlos, Ricardo Valentim

*10th Brazilian Congress of Pediatric Endocrinology and Metabolism, 2013*

## **Dengue National Observatory - A system for dengue cases monitoring**

Daniele Montenegro da Silva Barros, Philippi Sedir Grilo de Moraes, Jailton Carlos de Paiva, Jalerson Raposo Ferreira de Lima, Janaína Luana Rodrigues da Silva  
*Journal of Technological Innovation in Healthcare, 2013*

## **Conditional Execution: A Pattern for the Implementation of Fine-Grained Variabilities in Software Product Lines**

Jadson Santos, Jalerson Lima, Gleydson Lima, Uirá Kulesza, Demóstenes Sena, Felipe Pinto, Alexandre Vianna, David Pereira, Victor Fernandes  
*9th Latin-American Conference on Pattern Languages of Programming, 2012*

## **Modularization of Variabilities From Software Product Lines of Web Information Systems**

Demóstenes Sena, Felipe Pinto, Gleydson Lima, Jadson Santos, Jalerson Lima, Uirá Kulesza, David Pereira, Victor Fernandes, Alexandre Vianna  
*9th Latin-American Conference on Pattern Languages of Programming, 2012*

## **Squid: an extensible infrastructure for analyzing software product line implementations**

Alexandre Vianna, Felipe Pinto, Demóstenes Sena, Uirá Kulesza, Roberta Coelho, Jadson Santos, Jalerson Lima, Gleydson Lima  
*3rd International Workshop on Knowledge Oriented Product Line Engineering, 2012*

## **XRTPS - Extensible Real-Time Publish-Subscribe: A multicast middleware for exchanging XML-based data in real time networks**

Jalerson Raposo Ferreira de Lima, Ricardo Alexandro de Medeiros Valentim, Bruno Gomes de Araújo, João Marcos Teixeira Lacerda, Diego Rodrigues de Carvalho, Marcel da Câmara Ribeiro Dantas, Ronaldo Maia de Medeiros  
*HOLOS, 2011*

## **Patents**

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### **Telepediatria**

A web-based system, built in Ruby on Rails, to support non-specialists doctors in pediatric appointments, allowing cases to be discussed with remote medical specialists.  
#BR 51 2013 001071 3

### **Dengue National Observatory**

A web-based system to support public healthcare agents to seek for proliferation spots of the *Aedes Aegypti* mosquito.  
#BR 51 2013 001073 0

### **Formative Second Opinion**

A web-based system, built in Java, to manage formative second opinion of medical cases. I participated in this project as a consultant.  
#BR 51 2013 001075 6