

Luiz Guilherme Chagas Moraes JARDIM

PERSONAL DATA

PLACE AND DATE OF BIRTH: Rio de Janeiro, RJ | November 8th, 1989
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EMAIL: luizchagasjardim@gmail.com
REPOSITORIES: [Gitlab: luizchagasjardim](#),
[Github: luizchagasjardim](#)
OBSERVATIONS: Looking to emmigrate from Brazil.
Wife has Portuguese citizenship.

PRESENTATION

Dear recruiters,

I've been working for the BRAZILIAN NAVY for over two years developing software that simulates the engine room operations of a ship meant for training officers of the Mercantile Navy. This project has allowed me to learn a lot about software architecture and development, as well as project management.

Since I started, I developed the control module for the simulator, implemented a test interface to be used with our CI pipeline and coordinated the delivery to the client (presentations to admirals, training of professors who use the software and management of issues/bugs/improvements raised by the client). I have worked in various aspects of the project, using technologies such as *Java*, *C++*, *Postgres* and *Git*.

The simulator was the first full-mission engine room simulator made with brazilian technology. Information about the project can be found below:

Inauguration of the simulator (in portuguese): marinha.mil.br/ciaga/node/425

Technical information about the development (in portuguese): marinha.mil.br/ipqm/node/114

Video about the simulator (in portuguese, from 55 seconds onward): youtu.be/Kf5o3Ma-Mio

In between projects, the team is fine-tuning the software, correcting bugs and studying ways to improve performance. I am mainly preoccupied with refactoring the code for thread safety.

My goal is to learn as much as possible. Software development is a field where there are many interdisciplinary projects with a lot different subjects and technologies to learn about.

WORK EXPERIENCE

MARCH 2016 CURRENT	Systems analyst at BRAZILIAN NAVY RESEARCH INSTITUTE Development of a ship's engine room simulator for the Mercantile Navy Responsible for the control module (C++), maintaining the mathematical models (C++/Fortran) and communication between these components and the graphical interface (Java); Also responsible for the test module (C++/Java), which uses a .json file to simulate user operations and verifies the outcomes given by the models. It also checked the validity of FXML, XML and the database (Postgres). These tests were run using Gitlab's CI. Modifications on the database (pgSQL), graphical interfaces (JavaFx) and model analysis (XML, Simulink).
DECEMBER 2015 JANUARY 2015	Temporary Professor at RIO DE JANEIRO STATE UNIVERSITY Undergraduate Calculus and P.D.E.
DECEMBER 2011 JANUARY 2010	Tutor at RIO DE JANEIRO STATE UNIVERSITY Undergraduate Calculus and Algebra. Graduate Advanced Calculus and Continuum Mechanics.
DECEMBER 2009 SEPTEMBER 2009	Tutor at PH Math tutor for middle school and high school

EDUCATION

DECEMBER 2016	PhD in MECHANICAL ENGINEERING, Universidade do Estado do Rio de Janeiro , PPGEM Research Area: Transport Phenomena Thesis: "A hyperbolic model for saturated-unsaturated transition simulation in porous media" Advisor: Rogério Martins Saldanha da GAMA, PhD. Co-Advisor: José Julio Pedrosa FILHO, PhD.
JULY 2014	MSc in MECHANICAL ENGINEERING, Universidade do Estado do Rio de Janeiro , PPGEM Research Area: Transport Phenomena Thesis: "A new description of mass transfer in porous media with saturated-unsaturated transition" Advisor: Rogério Martins Saldanha da GAMA, PhD. Co-Advisor: José Julio Pedrosa FILHO, PhD.
DECEMBER 2012	Undergraduate Degree in MATHEMATICS Universidade do Estado do Rio de Janeiro , IME Thesis: "Cauchy Stress Tensor" Advisor: José Julio Pedrosa FILHO, PhD.

LANGUAGES

BRAZILIAN PORTUGUESE:	Native
ENGLISH:	Advanced

SKILLS

BASIC KNOWLEDGE:	Linux (Ubuntu), HTML, Fortran, Pascal.
INTERMEDIATE KNOWLEDGE:	SQL (postgres), JavaScript, MSOffice/LibreOffice, L ^A T _E X, MatLab/Simulink/Simscape, Mathematica, Modelica/OpenModelica, Maple.
ADVANCED KNOWLEDGE:	C++ 11+, Java 8 (JavaFx, JPA/Hibernate, JNI, JNA), Git/Gitlab/Gitkraken.

INTERESTS AND ACTIVITIES

Life-long learning, Programming, Engineering (Mechanical/Electrical), Math (Analysis/Topology), Physics (Newtonian/Lagrangian), Economics/Finance, Teaching, Game design, Musical Composition, Video Editing.