

Alessandro Wagner Palmeira

alessandro.palmeira@protonmail.com / +5511986383193
rulojuka.github.io - linkedin.com/in/rulojuka – github.com/rulojuka

SOFTWARE ENGINEER

I am a software engineer with a deep mathematical background. I have studied, practiced and competed on algorithms and data structures during high school and university. I am a professional programmer for 13 years (since 2011) and I always focused my study and work in software engineering best practices. I have taught programming for more than 300 students at Caelum, the lead Brazilian technology school at the time. I worked for 2 years at FlixBus in Berlin, Germany where I practiced functional programming and worked in an international environment. Currently, I am working on libridge.club, an online Bridge (card game) server with its core written in Scala, a functional programming language.

SELECTED HIGHLIGHTS

- Pivoted SBKing into libridge.club, which intends to create an open community around the Bridge card game
- At libridge.club, worked both on technical subjects such as the Java to Scala migration and also on product/business subjects such as talking to users and discovering future features and products to implement.
- Worked closely with the team's Product Owner at FlixBus to discover new products, organize and automate existing processes and assist on contracting device providers for a fleet of tens of thousands of buses.
- Implemented continuous delivery in the Gamers Club's multi-gaming platform
- Taught object-oriented programming and web programming with Java, C# and React to more than 300 students at Caelum in more than 1500 hours.

KEY COMPETENCIES

Software engineering	Backend development	Agile methodologies
Object-oriented programming principles	Analytical skills	Information security
Teaching and communicating	Algorithms and data structures	Linux and free software community

EDUCATION

Institute of Mathematics and Statistics of the University Of Sao Paulo (IME-USP)

Bachelor's Degree in Computer Science

PROFESSIONAL EXPERIENCE

libridge.club / January 2024 – Currently Project Leader / Software Engineer

libridge.club is an online Bridge (card game) server and community. A small demo is available at <https://libridge.club/>. It was forked from SBKing.

- I studied the current available options for online Bridge play and researched with potential users to understand the global scenario and which products/features to focus on.
- I refactored the core (now named scalabridge) from Java to Scala, in order to take advantage of functional programming features like immutability and make it free of side-effects. The details are available in my [blog post](#). This already puts scalabridge as a robust bridge engine that can be used for studying or making statistics using a history of recorded games.
- I researched, learned and practiced a lot of functional programming. This was one of the main goals since I started the project.
- I implemented the integration with two excellent already existing open-source Bridge tools: dds and ben. This allows a libridge.club user to see double-dummy analysis on historical data (via dds) and to receive Artificial Intelligence suggestions on auction and card-play (via ben).
- I started a libridge.club podcast in order to bring attention to the project. The first episode is being edited and will be published shortly.

FlixBus / August 2021 – November 2023 Software Engineer

FlixBus is a leading global travel-tech company, providing sustainable and affordable travel solutions to more than 400 million travelers since its launch, across more than 40 countries on 4 continents.

- I wrote software to get data from different on-board devices inside trains and buses, to enrich this data and finally provide it in real-time for other teams to consume and create products themselves. Some of the raw data were GPS coordinates, WiFi summaries and seat occupation detection and some of the derived final products were real-time visualization of your ride, alerts for delays and WiFi quality monitoring.
- I worked closely with the Product Owner of my team to understand, organize and automate the onboarding of train coaches to one of our products. This added transparency to crucial information that led to an important business pivot for this product.
- I researched a handful of different hardware and software providers in order to assure they met the functional and non-functional requirements of the team. This directly assisted the communication of the Product Owner with the providers and eventually led to a multiple-year contract for tens of thousands of devices embedded in the buses of the fleet.
- Together with a colleague, I reverse-engineered a Digital Video Recorder (DVR) to provide video recordings of some train coaches for the local authorities.
- I organized an wiki with vast, but outdated existing team knowledge. That increased the efficiency of communication inside the team and with surrounding teams.

SBKing / February 2021 – July 2021 Project Leader/Software Engineer, Maintainer and Mentor

SBKing is a multi-card game application used as a tool to teach Contract Bridge to almost 100 new players and as a place to play King and Bridge card games online with friends. It is still available at [GitHub](#) but was abandoned in favor of libridge.club.

- I developed an online card game from scratch using Java and the best Software Engineering practices and principles. For instance, the code has a high unit test coverage, well separated responsibilities and a modular architecture. I wrote all of the base network, client interface, server and game rules code.
- I maintained the repository and its issues, projects, code reviews and pull requests as new developers were contributing to the project.
- I mentored an intern in a 6-month project to implement Skat, a traditional German card game, together with various improvements while teaching more about Software Development, Agile and Free Software.

aktie now / October 2020 – November 2020 (Freelance) Technical Consultant

aktie now wanted to measure and improve the skills of their development team. They hired me to develop a technical assessment to make the initial measurement.

- Developed a complete Technical Assessment consisting of two different tests: a theoretical one with 80 multiple-choice questions and a practical one consisting of a hands-on project in React. The assessment contained 5 different topics (JavaScript, React/Redux, Database, Design Patterns and MVC) and was deep enough so that even senior developers in any of the topics would be challenged by it.

Gamers Club / October 2019 – October 2020 Software Engineer

[Gamers Club](#) is the largest Counter-Strike and e-sports platform in Brazil.

- Worked developing the backend of the multi-gaming web service using Node.js.
- Increased efficiency and agility in a very time-opportunity-oriented business by increasing awareness of the value of technical excellence. I achieved that by presenting lectures, offering tools to measure code quality and creating a plan to increase automated tests coverage and to reduce technical debt.
- Increased the product quality and delivery flow while decreasing the number of bugs in the project by implementing continuous delivery.
- Spread many different agile practices and culture in general, increasing the flow and quality of the product.

Caelum / January 2019 – May 2021 Freelance Instructor

Caelum was the lead IT school in Brazil. Around 2021 it was merged into [Alura](#).

- Taught over 1500 hours of real-time teaching for more than 300 students total.
- Taught object-oriented programming and web programming using Java, C# and React

Caelum / April 2017 – December 2018 Full time Instructor and Developer

Caelum was the lead IT school in Brazil. Around 2021 it was merged into [Alura](#).

- Learned the nuances of teaching, how to communicate in a structured way and really understand the doubts of the students and how to solve them.
- Became a polyglot developer, making use of the Fundamental Concepts of Programming Languages I learned in University to understand deeply different paradigms such as Procedural, Object-Oriented, Functional, etc and languages such as C#, Java, Scala, C, JavaScript, Ruby, Python, Clojure, etc.

Casa doCodigo / January 2015 – December 2015

Developer Intern

[Casa doCodigo](#) is the book publisher associated to the Alura's group.

- Worked in a microservices architecture and programmed in various web frameworks such as Spring Framework, VRaptor, Play Framework and Rails (Ruby)
- Started understanding programming as a business outside of the University environment.

Mezuro / August 2011 – September 2014

Undergraduate Researcher

Mezuro was a platform to measure and compare source code from open-source projects.

- Got deeply involved in Agile, Extreme Programming and Free Software.

LANGUAGES

Portuguese - Native

English - Proficient

German - Basic

Spanish - Basic

COURSES AND CERTIFICATES

- Architecture and Design in Java Projects; **Caelum**; 2018
- Passed Linux Professional Institute Level 1 Exam 101; **LPI**; 2018

TECHNICAL SKILLS AND TOOLS

- Java, Scala, Docker, git, C#, C, JavaScript/TypeScript, Node.js, React, Agile/Extreme Programming, GNU/Linux, latex, Shell Scripting, Cryptography, ASP.NET / Core, Entity Framework / Core, HTML, Ruby, Rails, vim

OTHER ACTIVITIES AND PROJECTS

- Recently writing to the [libridge.club blog](#).
- I like to study and reverse-engineer Super Nintendo (SNES) games using 6502 assembly. That is mostly focused on creating Tool Assisted Speedruns (TAS). [Github link](#).
- [Contributed](#) to [open-source](#) project [lichess.org](#) (in a language I had no contact before: Scala)
- Various public repositories at [GitHub](#)
- Volunteer at Cryptorave (2016, 2017)
- Volunteer at Agile Brazil (2018)
- A couple of videos about the history of the computer in my [YouTube channel](#)
- Free Software presentation at [Alura Live](#) (offline)

- Mezero presentation at FISL14 (Forum Internacional do Software Livre)
- Posts about Java at [Caelum](#) and [Alura](#) blogs
- Dozens of medals in Astronomy, Mathematics, Physics and Programming competitions. Highlights are:
 - (2012) 20th place in the ICPC South-American Regionals
 - (2011) 12th place in the ICPC South-American Regionals
 - (2008) Selected to participate in the International Astronomy Olympiad (IAO) in Trieste, Italy
 - (2006) Selected to participate in the International Astronomy Olympiad (IAO) in Mumbai, India
- I compete in Bridge and Skat card games. Highlight:
 - (2014) I was semifinalist at the Under-26 South-American Bridge Championship in Santiago, Chile
- I used to host a club around active listening of music albums. We gathered weekly and have listened to more than 120 albums. We edited and published a couple of editions in a podcast format at [SoundCloud](#).