
PROFESSIONAL SUMMARY

Enthusiastic, talented Senior Software Engineer with excellent programming skills, strong problem-solving abilities, quality-driven and customer-focused. Passionate not only about technology, but also about applying it to improve people's lives in new and innovative ways. Experienced in handling the entire software development life cycle, and used to working with a wide variety of technologies. Constant learner who motivates their peers and is self-motivated, positive, proactive and pragmatic, communicative and collaborative, and ready to take responsibility and ownership.

EXPERTISE

- 15+ Years of professional software development experience;
- Adept in Golang programming
- Exceptional Java programming and its main frameworks like Spring, Hibernate and JUnit;
- Strong programming experience with C, C++ and Lua;
- Good experience in object-oriented design, and design patterns;
- Excellent knowledge of MacOS and UNIX operating system, including Linux for development and basic administration;
- Familiarity with relational and NoSQL databases such as MongoDB, DynamoDB, PostgreSQL, and MySQL;
- Experienced with Web development: Django, Rails, J2EE, Spring MVC, Tomcat, AngularJs, NodeJs, JSP, Servlets, JSF, HTML5 and CSS;
- Strong experience in design, unit testing, reviews, system testing, requirements, BDD;
- Experienced with all phases of product development lifecycle, including prototyping, development, test, product release and sustaining engineering;
- Experienced with source control systems like Github, Gitlab, Subversion, JIRA, Buildbot and Hudson;
- Familiarity with agile methodologies as well as software planning and estimation techniques;
- A strong commitment to life-long learning, enjoying teaching and mentoring;
- Team oriented, encouraging the use of common procedures, practices, and tools;
- Excellent written and verbal communication skills (English and Portuguese).

CAREER HIGHLIGHTS

- 3DReplay is a football analysis system that converts key events from real video to a 3D model scene, allowing it to be viewed from any angle. During the period I worked in this project, I made a significant improvement in the camera calibration method, making it possible, for the first time, to perform it from any part of the field, not only on the penalty area as before;
- Also during my participation within the 3DReplay development, I was responsible to demonstrate the application at our selling partner Orad's stand at the world's largest electronic media show (NAB) for three consecutive years;
- Led the development of one of the first Multi-Touch Wall application in the world. Using Perceptive Pixel's wall display and SDK, I was responsible for creating the presentation software of multiple broadcast TV shows;
- Promoted a system that analyses large amounts of data of reservoir cores collected by x-ray computed tomography. This tool improved quality and efficiency of a well's productivity evaluation;
- I worked with the creators of the scripting language Lua.

CAREER HISTORY

Backend Software Engineer – Toggl, Remote

July 2017 – Present

Toggl (www.toggl.com) is a leading online time tracking tool, which is extremely popular among freelancers, consultants, and small companies.

- Technically responsible for the new Reports feature backend
- Main responsibilities includes: creating new features in REST API, fixing bugs and improving existing code base
- Technologies include: Golang, PostgreSQL Ruby, Rails, AWS, Google Cloud

Technical Lead – Future Media, BBC, Manchester/UK**July 2015 – July 2017**

British Broadcasting Corporation (www.bbc.co.uk) is a UK-based international public-service broadcaster headquartered at Broadcasting House in London.

- Technically leading a team of 7 engineers to design, develop and deliver cloud based broadcast systems for interactive data playout (including red button services) across multiple platforms (Freeview, FreeSat, Sky and Virgin Media).
- Technologies include: Deployment target: AWS, load-balanced auto scaling EC2 instances, SNS, SQS, S3.
Platform: Java 8, Spring Framework, Spring Boot, DynamoDB.

Software Engineer – Future Media, BBC, Manchester/UK**October 2014 – July 2015**

British Broadcasting Corporation (www.bbc.co.uk) is a UK-based international public-service broadcaster headquartered at Broadcasting House in London.

- Worked in the Connected Red Button team at the BBC – a very agile team that encourages practices such as pair programming, code reviews, TDD, and BDD.
- The Connected Red Button is a service from the BBC that brings TV, online and BBC iPlayer together in the simplest way possible on the living room TV. It offers a world of extra programmes and features without having to leave the current programme.
- Key Technologies used: Java 8, Spring Framework, Javascript, Mheg, OpenTV, Php, Ruby, Cucumber, Phyton, SQL, XSLT and various Broadcast technologies.

Senior Software Engineer, Pace, Belfast/UK**September 2013 – October 2014**

Pace (www.pace.com) creates technologies, products and services for the broadcast and broadband industries.

- Worked in Pace's COBALT software development team. COBALT is a service delivery platform hosted in the cloud, which comprises a TV management platform, multi-device application servers and on demand delivery systems within the operator headend;
- As a senior member of the team, my main responsibilities included:
 - Design, code, unit-test and debug applications in various software languages;
 - Integrate software with existing systems;
 - Review and repair legacy code;
 - Flag incomplete/ambiguous requirements as early as possible in development cycle;
 - Communicate any major slippage in timelines;
 - Maintaining the systems once they are up and running;
- I also started to enhance the duties required for promotion to a Software Team Leader. It included:
 - Estimate, plan and execute software releases;
 - Task and track of software issues to team;
 - Interface with other groups: Quality, Sourcing;
 - Metrics track;
 - Report of project status to Software Manager;
 - Motivate and encouragement of team under challenging targets;
- Key Technologies used: C/C++, Java development, Web Applications, PostgreSQL, database development, XMPP.

Senior Software Engineer, TecGraf, Rio de Janeiro/Brazil**June 2012 – August 2013**

Tecgraf (www.tecgraf.puc-rio.br/en) has been continuously developing innovative software products in the areas of Geophysics, Geology, Reservoirs, Geomechanics, Marine Facilities, Industrial Plants, Environment, Logistics and Training.

- Worked with the TecGraf's Distributed Systems Engineering group. This group was formed with the purpose of investigating and developing new abstractions, architectures and middleware systems for the implementation of more flexible, robust and scalable distributed systems;
- Developed new features for a framework called ALOPE. It is responsible for providing relevant information to the supply chain of oil production in Brazil. The allocation is based on the deflation of the production platform's tanks and the accumulation of daily oil by each refinery;
- Key Technologies used: Java, Swing, Distributed Systems, Client/Server architecture, and Databases.

- Worked with the TecGraf's Visualization and Reservoirs group. This group is responsible to develop and research products in the areas of Scientific Visualization and Photo-realistic Visualization, employing topologic representations of models, acceleration techniques for real-time visualization of complex models, rendering techniques, and user interaction techniques;
- Led an R&D project named ROCHA. It was totally designed and developed from scratch from July/2011 to July/2012. This project offered significant challenges, such as creating a tool that could improve the quality and speed of a well's productivity evaluation. ROCHA presented excellent results at finding lithofacies with different clustering algorithms, electing the one with better values of cohesion and separation of inner clusters. The main technologies involved were: C++, Data Mining, QT, Image Processing techniques, OpenCV and Computer Graphics;
- Led multiple multi-touch solutions for Brazilian TV shows using different commercial displays. For each solution were developed new software using base framework to deal with the different technologies. My main responsibilities were to project and development, management of a small team, and deal with the client. Key Technologies used: C++, Lua, Iup, Computer Graphics, Professional TV Equipment.

- Worked in the development of a football analysis system that converts key events from video to a 3D graphics model. Using computer vision algorithms and graphics, 3DReplay allows the creation of a 3D environment from a football match 2D image that is used to view controversial plays from different angles. Key Technologies used: C++, Lua, Iup, Computer Graphics, and Computer Vision.

EDUCATION & LATEST COURSES

- M.Sc in Computer Science, Computer Vision/Graphics, PUC-RIO (2006 – 2008)
- B.Sc in Computer Engineering, PUC-RIO (2000 – 2005)
- Web Development w/ Google's Go (golang) Programming Language (Udemy – 2018)
- Django 2 & Python | The Ultimate Web Development Bootcamp (Udemy – 2018)
- The Complete Google's Go (golang) Programming Course (Udemy – 2017)
- Architecting on AWS (BBC Academy – 2016)
- Security Operations on AWS (BBC Academy – 2016)
- Continuous Delivery with Cosmos (BBC Academy – 2015)
- Agile Release Planning (Agility in Mind Limited – 2015)
- Service Side Development (Spring) (Conygre Consultants – 2015)
- Amazon Web Services - AWS Essentials (BBC Academy – 2015)
- TV Digital Broadcasting (BBC Academy – 2015)
- Gatling - Load Testing (BBC Academy – 2015)
- Behavior Driven Development (BBC Academy – 2015)
- Microservices (BBC Academy – 2015)
- Ruby and Cucumber (BBC Academy – 2015)

PERSONAL PROJECTS

- Malf.live: Portfolio and Personal blog.
- Primapad.com: Simple loginless cloud notebook.
- OfarolDigital.com.br: Online freelancing community.
- Interactive Arts: Project created for clubs where the spectator and the music interact with animations project on walls. Key Technologies used: Kinect, Camera, Electronics, Computer Vision, Computer Graphics;
- ColorPro: System that improves the efficiency and quality of coffee roasting process. This software was developed for SENAI-RJ / FIRJAN. Key Technologies used: C++, Iup, Lua, Neural Networks, Computer Graphics;
- Optical Draw: Developed hardware and software to reproduce an optical pen tablet using a camera, LED, and signals captured from an electronic sensor. Key Technologies used: C, Iup, Electronics, and Computer Graphics.

RECOMMENDATIONS

- “Mauricio is a dedicated and conscientious engineer who quickly grasps fresh challenges and works hard to overcome them. He works well with fellow team members and delivers to high standard.” -- Mark McKeown, Lead Software Engineer at Pace;
- “Mauricio has taken on a challenging project and produced great results for us. The application that he and his team developed is both innovative and reliable.” -- Jose Manuel Marino, News and Sports Director at TV Globo Ltda;
- “Mauricio is extremely capable and efficient in their areas of expertise. Moreover, he is dynamic and is always researching new technologies that can help the team.” -- Lucas Teixeira, Computer Vision Researcher at PUC-RIO.

Last Update: September 2018