

# Valdir Salgueiro

SOFTWARE ENGINEER

Recife, Brazil

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## Summary

Experienced Software Developer with a demonstrated history of working in the information technology and services industry.

Strong engineering professional skilled in C#, Java, C++ and Javascript.

Versed in different Desktop, Web and mobile technologies.

Commonly used tools are Visual Studio and Eclipse.

## Work Experience

### Samsung

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Oct. 2016 - PRESENT

- PenSDK

PenSDK is a low level API for implementing various types of pens, the API is used internally by korean PenUP mobile Samsung Team.

Here I worked leading a team of three people porting the OpenGL ES(mobile) code to desktop DirectX and making sure everything kept running smoothly and all graphical effects were kept intact.

My role included teaching graphics technologies like OpenGL and DirectX in order to leverage the team, create a plan to port some critical brushes and its features, create a desktop architecture for graphic rendering with only needed features, create a implementation plan, negotiate critical features with Korea and keep them informed along all steps.

Most of the code is native (C++) for performance and interoperability between UWP and DirectX/OpenGL.

- Live Message

Draw your own emojis, make animated GIFs, or write handwritten messages on photos. Live message allows you to express your feelings and send them to people you care about.

Here I worked with a team of two other people to implement new pen effects such exploding hearts, multicolored strokes and more.

- Samsung Gallery

You can view and save photos and videos taken on your phone directly on your computer.

Worked implementing new features and fixing bugs.

Implemented 3D video viewing using C++ DirectXTK for the geometry with custom managed C++ library.

Other remarkable work with C++ was integrating native custom made face detection and image quality detection code for suggesting best photos for the user.

- Studio Plus

With Studio Plus, you can make movie clips easily using your favorite photos and videos from your computer.

I worked since first prototype until Studio Plus 2.0 release. We showed first prototype and got the approval to keep working with the project.

Studio Plus was later bundled in Samsung flagship notebooks.

Helped integrating C++ artificial intelligence API such as OpenCV and Yolo for object detection, creating shaders for special effects, font shadows, etc and also all the features requested by Samsung HeadQuarter.

Integrated C++ FFmpeg for movie clip frame extraction and faster video playback.

Integrated C++ DirectX Interoperability for displaying GLTF and GLB 3D files.

Integrated C++ FMOD for sound beat detection in any music turning possible to present user photos according to the music beat.

- Technology

C#.NET, Universal Windows Platform - UWP, OpenCV, yolo, C/C++ (managed and unmanaged), DirectX 11 and OpenGL ES 2.0.

- Team role

Model and architect softwares, write high performance code, plan and detail scrum tasks. Implement new features and review code submitted by colleagues.

Work closely with remote teams at São Paulo and Korea.

Implement requested features by Samsung HeadQuarter (HQ).

Implement UI and GUI guideline as requested by HQ.

Make sure code is as bug proof as possible meeting the Samsung Korea Quality Assurance Criteria.

## Stefanini

Recife, Brazil

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July. 2014 - September. 2016

- DSDI  
Linux mainframe (System Z s390x) port of C/C++ artificial intelligent libraries: DSIR, DSSV and DSIQ.  
Added HLSL shaders for image quality correction: brightness, saturation, binarization, etc, solving slowdown caused by previous implementation based on software renderization.  
Implemented C++ TIFF loading on web browser diminishing load for tiff processing on the server side using Emscripten.  
Implemented C++ chrome browser plugin for document signing using Portable Native Client (PNaCl).  
Worked serverside with Spring Boot adding JToken authorization, implementing business rules.  
Added caching with Redis.  
Implemented messaging system with RabbitMQ.  
Worked with Desktop development mainly using Windows Presentation Foundation(WPF) and Entity Framework for database management.  
Worked with Frontend development with GTW and later ported the code to Angular.  
Identified and fixed performance problems in C++ TWAIN scanner API and expanded compatibility with more scanners.  
Replaced proprietary signing (Certisign) that used deprecated Servlet for signing in the WEB, and replaced by PNaCl chrome extension besides creating javascript promise system for plugin consuption and asynchronous calls.  
Implemented Timestamp signing of Portable Document Files (PDF) needed for public agencies documents.  
Implemented adding watermarks for PDFs needed for public agencies documents.
- Technology  
Backend: WPF/C#. Alfresco customization in Java Spring Boot. C/C++ for native code.  
Frontend: Vaadin. Angular. Handlebars. HTML, CSS, Javascript and JQuery.

## Id Tecnologia

Recife, Brazil

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Feb. 2014 - June. 2014

- IDTech  
Software to manage work scheduling of public agents in some large public agencies.
- Technology  
ASP.NET  
MVC4, Bootstrap, JQuery and Webforms.  
Maintenance of Web Services in WCF and WebAPI.
- Team Role  
Since codebase was very large I had to make sure code I wrote worked at all layers and did not break business logic.  
Code was critical since it managed schedule of public agents and it also generated a payout report based on worked hours, holidays, shifts and so on.  
Write testable code.  
Write unit tests for testing business logic.  
Maintaining large codebase with complex business logic.

## Waveit Tecnologia

Recife, Brazil

### SOFTWARE ENGINEER

Feb. 2012 - June. 2014

- 3D Scene editor and viewer for creating and presenting virtual environments.  
Integrate shader effects (compositors) such as SSAO, Volumetric Light Scattering, Normal Maps, Parallel Split Shadow Maps, Depth of field and others.
- Technology  
C++ and Ogre3D along with open source tools and libraries.
- Team Role  
Worked as a graphic developer from a team of two developers and one 3D artist. Implemented features for easing scene creation such: material scripting, model scene positioning, code scripting, builtin post processing features and much more.

## Samsung

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April. 2010 - December. 2011

- Lex Mobilis and Med Mobilis.  
Lex Mobilis is a mobile application aimed at lawyers where they could manage their calendar, customers, files and link everything to their cases.  
Med Mobilis is a mobile application for helping medics organizing their daily obligations.  
It has features such as calculating BMI (body mass index) and drugs compilation.
- Technology  
J2ME, Java and Android, C# and Bada(C++).
- Team Role  
As part of a team being the junior engineer my responsibilities were designing, creating and developing new mobile apps for diverse Samsung mobile platforms (Windows Mobile, Android, Bada and proprietary platform using J2ME). All Samsung UFPE projects required the use of SCRUM methodology and diversification of technologies such as J2ME, Java to Android, C# and C++ to Bada. Team size varied between projects and was around 5 persons on average.

## Stefanini

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SOFTWARE ENGINEER

March. 2009 - March. 2010

- Search application for personal and corporate document indexing.
- Technology  
Java, JSP, Solr and Lucene.
- Team Role  
Research best techniques, develop and improve document indexing applications using open source software mainly Solr and Lucene.  
Implement local and LDAP connection for document gathering in a network. Research document clustering techniques, document tagging, highlighting and other document indexing solutions.  
My project was comprised of five persons and I worked as an undergraduate intern.

## Meantime

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Sep. 2007 - January. 2009

- Developed one web application to manage test plans, test suites and test cases for mobile applications.
- Technology  
JSF, Hibernate, Javascript and HTML
- Team Role  
The project had a limited time frame of one year and later was extended for a couple of months. As an intern I had various tasks from frontend like implementing the several create/update/delete pages and do Java backend work including creating classes for entities, persistence and controllers. Also participated in Hibernate entity relationship configuration and tuning.  
Team was comprised of three persons: Three undergraduate interns and a master's degree student.

## University of Pernambuco - UPE

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November. 2006 - September. 2007

- Developed Computer Department Research Website  
Civil Postgraduate Department Website
- Technology  
LAMP Stack - Linux Apache MySQL and PHP. Javascript and HTML for the interface
- Team Role  
Only developer in the team. Was responsible for gathering requirements from the main stakeholders, usually the head of the department.  
Contact university infrastructure team for deploying and reporting any infrastructure related problem.

## Education

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### UPE(Universidade de Pernambuco)

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B.S.C IN COMPUTER ENGINEERING

2004 - 2010