

# Education

## Santiago de Cali University

2016 - 2021

Systems Engineering

I am a student at the University of Santiago de Cali, I have participated in all robotics events sponsored by the university, taking care of the programming part at low level. My work has served as a basis for the development of new projects. My thesis has already been approved with a grade of 5.0/5.0 titled: "Analysis of benefits and risks of using code coverage".

## SENA

2013 - 2015

Systems Technician with Emphasis on Corrective and Preventive Computer Maintenance

I studied at SENA to obtain my degree as a Systems Technician with a strong emphasis on preventive and corrective maintenance of computers, in addition to developing my programming and math skills.

# Experience

## English - Spanish content translator

Translation of content, revision, correction and adaptation of translation from English to Spanish.

Project leader (2018 - 2019), focus on goals, deadlines and improvement plan.

Application development for format conversion, allowing the automation of a manual process and reducing equipment time in the manual conversion of different formats.

Application development (desktop and web) for the translation of strings extracted from native formats, increasing the efficiency of the team and facilitating the task of conversion and translation.



Ludeon

## Open Source Projects Collaborator

Software development from specifications. (PNG V1.2)  
Refactoring of legacy code and implementation of interfaces  
Use of modern methodologies (Module Design and Dependency Management)



Open Source

## Freelance Developer

Development of web platform focused on mobile devices for accounting records management, payroll and invoice payment, using HTML5, CSS3 and Javascript technologies for client side and server side: NodeJS and MongoDB. Use of Software design patterns, SOLID and MVC.



# Experience



## Taylor & Johnson

6 months as a Cobol programmer with experience in financial systems, in charge of the maintenance and development of banking software, in charge of the constitution of formats and financial contracts, innovation and development of internal processes to increase the efficiency and effectiveness of the team, test automation, implementation of version controller and continuous integration of the developed software. Debugging and migration of information for processing in SQL DB2 IBM database.



## Globant Enterprise

FullStack programmer focused on the development of custom enterprise applications that encompass accurate and stable solutions over time, the development of applications covers the deployment on mobile and Web platform (Frontend), the deployment of Web applications is done in the form of SPA (Single Page Application), the development of the internal structure (Backend) of the application is done hand in hand with AWS and Azure services, The structure of the information includes the use of NoSQL databases such as DynamoDB and MongoDB, the structuring of the logic that accompanies the other services is driven by an architecture based on Microservices that sponsor the atomicity of the logic in Lambdas and AWS Streams functions, the latter serve as an inspector for any changes made to the application model offering total transparency on the events that affect the business model on which the application works.



# Statement

Graduate of Systems Engineering from Universidad Santiago de Cali, with a strong interest in the areas of computing and programming, with a voracious hunger for software development that adds value to the daily operations of the business model, automation of mechanical processes and perfection in the effectiveness, efficiency and effectiveness of the resources employed. I have experience in financial systems from my work at Taylor & Johnson as a Support, Maintenance and Development Engineer, using **Cobol** as programming language and Mainframes (IBM) as infrastructure for the deployment of operations, in Globant Enterprise my functions cover the development in internal infrastructure (business logic embodied in programming aspects) and customer-facing presentation (visualization of the business model), development using technologies provided by infrastructure providers such as **Amazon with AWS** and **Microsoft with Azure**, the use of rapid prototyping technologies (such as **React JS**, **NoSQL databases** such as **DynamoDB** and **MongoDB**) and the use of agile methodologies such as Scrum and XP.

Desire to learn new technologies, platforms and solutions, in addition to solving problems that affect the organization, the goal as an engineer is the resolution of problems covering areas such as: computational performance, consumption of computational resources, software maintainability and process automation, highly desirable aspects for any organization.

My highly developed focus areas have been: **performance, consumption, software maintainability** and **process automation**, applying: design patterns, SOLID principles, MVC models, module-based development, microservices, automatic dependency management and the use of standards developed by international standardization organizations.

Languages		Database	
C++	Standard 17, 14, 11 and 98	MySQL	(Relational) V8 y 5.7
C#	Standard ECMA 9, 8 and 7	MongoDB	(No Relational) V4.4.3
Java	JDK 15, 14, 12 and 8		
Javascript	ECMA 2020, 2016		
Python	Version 3.7 and 2.7		



# Highly specialized skills

- Finding and repairing memory leaks (Memory Leak) with Valgrind.
- Design, improvement and writing of documentation, even if non-existent.
- Support in the technical analysis and design of Software based solutions.
- Development and execution of projects using MongoDB (NoSQL) as database.
- Development and implementation of Loggin systems following the RFC5424 standard.
- Development and implementation of test cases (unit tests, integration tests an system tests).
- Code coverage reporting and analysis (based on both test cases and binary execution).
- Code behavior analysis from binaries (Buffer overflows and debugging to unallowed memory accesses).
- Design and implementation of meta-programming for space and runtime efficient binary generation.
- Reports and analysis of assembly code prone to improvements (necessary to reduce binary size and improve compile time).
- Implementation and evolution of continuous integration platform.  
Design and implementation of component and microservices based software architectures.
- Simplification and refactoring of large code bases. (Specialized in C/C++ and Java).
- Evaluation and testing of new solutions and computing platforms in the field of application integration, microservices, high availability and performance.





# Projects

- Development and implementation of PNG image decoder and encoder according to the specifications (PNG Standard v1.2).
- Development and implementation of decoder and encoder based on Huffman
- Coding algorithm for data binarization and encryption.
- Development and implementation of software for conversion of PO files to XML.
- Development and implementation of database (CRUD operations support) for working on CVS files.
- Development and implementation of A\* algorithm (Pathfinding).
- Development and implementation of hexadecimal editor for any type of file. (Implemented in Qt Core).
- Development and implementation of Web application focused on cell phones.
- Development and implementation of two-dimensional graphics engine, using OpenGL and SDL.
- Development and implementation of framework for the design, implementation and development of programs with rendering requirements and use of algorithms (Encryption, Compression, Pathfinding, etc ...).



# Technological experience

- Experience in the development of components and microservices.
- Experience in refactoring large code bases.
- Experience in refactoring legacy software.
- Experience in C/C++ (low level programming). Supporting standard 99, 11, 14, 17 and 20.
- Experience in Java 8, 12 and later versions.
- Experience with non-relational databases (Mongo DB).
- Experience in application development: React, NodeJS, Bootstrap.
- Experience web application development: HTML, CSS and Javascript.
- Experience in mobile-focused web application development.
- Experience with continuous integration environments (Jenkins, Sonar, Mockito, Cucumber, Junit...).
- Experience with version control software (Git, Github, Fossy, etc ...).
- Experience with version control dynamics (Pull Request, Push, Fork, etc ...).
- Experience in web page analysis and performance improvement (Chromium Development Tools and Lighthouse).
- Experience in the development of documentation corresponding to the executed part of the project.
- Experience in the participation of tasks of putting into production of the developed systems (preparation of delivery, implementation, support).
- Experience in maintenance of information systems.



## Technological experience

- Experience in the technical documentation of the project.
- Experience in functional analysis and elaboration of functional documentation on the project.

## Customer service skills

- 6 years of experience in customer service and customer care (both physical and virtual).
- 3 years in team coordination and team multi-tasking.
- Excellent charisma, attitude, interaction and interaction with customers, teams and individuals.
- Excellent personal presentation.
- Excellent vocabulary and persuasion skills.
- Excellent writing skills, both in Spanish and English.

