

# ANDRÉS ENRIQUE PACHÓN BUSTOS

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Bogotá, D.C, Colombia

## SÉNIOR SOFTWARE ENGINEER – ARCHITECT / WEB AND BACKEND DEVELOPER

### Professional Profile

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Competent and enthusiastic Systems Engineer with more than 17 years of professional experience in all phases of the software development life cycle, with a solid technical background in the design and development of functional architectures and enterprise software infrastructure and solutions for platforms and tools. Web. Solid knowledge and experience in the implementation of architectures, databases, data warehouses, data analytics structure and service-oriented information systems applying industry practices and standards taking into account ICT resources, as well as the improvement, updating and maintenance of existing information systems. With the necessary skills to lead, evaluate and implement business management and technological transformation projects, contributing to the construction of safe, efficient and scalable solutions that contribute to the decision-making process of an organization. Able to work on the creation of new guidelines according to Capability Maturity Model Integration (CMMI). Analysis and preparation of reports from large volumes of data and with the ability to implement business intelligence projects, repositories and data warehouses. Able to direct and support internal and / or external control systems, monitoring schemes, monitoring, control and management evaluation. Able to direct and lead work teams with interdisciplinary performance, easy to learn, analyze and offer solutions that contribute to the achievement of business objectives. Specialized in development and maintenance of web applications and in the creation and improvement of functional software architectures.

**Core competencies:** Software Architecture - Software Development - Business Requirements – Process Management -Project Management - Monitoring and Control - Database Management - Web Development - Core Development - Process Improvement - Balance Scorecard - Audit - Risk Management - Enterprise Architecture – Data Analytics.

### Software Skills

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- **Programming:** C# and VB .NET, Java, Java EE
- **Web Technologies:** ASP, ASP MVC, Share Point , AngularJS, HTML, JQuery, DNN Dot Net Nuke, Windows Communication Foundation (WCF), Restful, SOAP
- **Methodologies:** Rational Unified Process (RUP), Personal Software Process (PSP), Team Software Process(TSP), Agile Methods: Extreme Programming, Scrum, Unified Modeling Language (UML)
- **Databases:** Microsoft SQL Server, Oracle, MySQL, PostgreSQL.

## Education

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Universidad de Los Andes  
Industrial Engineering Department  
Title: Management and Control Specialist  
April of 2009. Bogotá, D.C.

Universidad de Los Andes  
Systems and Computer Engineering Department  
Title: Construction of software Specialist  
May of 2005. Bogotá, D.C.

Fundación Universidad Central  
Systems Engineering Faculty  
Title: Computer Science Engineer  
August of 2003. Bogotá, D.C.

## Courses and others

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- Preparation for PMI Project Management Professional, Engineering School, October de 2006
- Management Project and Bussines Recovery, Universidad Central, June de 2003
- Enterprise applications for Visual Studio .NET, 5 weeks, Compuaulas, July 2003.

## Professional and personal references

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Rocio Torres Rivera, Subdirectora Programa de Gobernabilidad Regional de USAID, Phone: (571) 3012327779.

Carmen Rocio Rangel, Directora - Dirección de Gestión de los Recursos Financieros de Salud, Phone: (571) 330 5000 Ext. 1911, (57) 312 587 4675

Gustavo Adolfo Montañez Olaya Jefe de Planeación Costos Gate Gourmet Colombia Ltda.  
Phone: (571) 414 7979 Ext. 161

## Professional and Work Experience

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**Departamento Nacional de Planeación**  
**Bogotá, D.C., Colombia**  
**Consultant – Contractor (Professional Services)**  
February 9th, 2018 – Present

**Duties/Functions:** Support the Dirección de Inversiones y Finanzas Públicas –DIFP - in the activities corresponding to the administration, maintenance, updating, and improvement of the tools for loading and consulting information on Distributions of the Sistema General de Regalías (SGR) and Sistema General de Participaciones (SGP); as well as in the preparation and generation of reports required by the territorial financing group -GFT- of the DIFP. Prepare the files or information interfaces that must be uploaded monthly to other DNP platforms, such as Mapa Regalías, Mapa Inversiones, SUIFP-SGR, Gesproy.

**Technologies:** SQL Server, C#, Web Forms, ASP MVC

**World Bank – Programa para el Fortalecimiento de la Gestión Financiera Pública de Colombia.**  
**Consultant – Contractor (Professional Services)**  
November 9th, 2020 - July 31st, 2021

**Duties/Functions:** Advises and supports the Comptroller General of the Republic - CGR and the Ministry of Finance and Public Credit - MHCP - Directorate of Fiscal Support - DAF in the creation of instruments and the

implementation of the unified report of information on the ordinary budget and royalty budget by the Public entities that develop the General Budget of the Public Sector within the framework of the application of the Budget Classification Catalogue.

**Technologies:** Interaction with software in house (developed in Java and database in Oracle).

**Procuraduría General de La Nación**

**Bogotá, D.C., Colombia**

**Consultant – Contractor (Professional Services)**

March 7th, 2019 – December 31th, 2019

**Duties/Functions:** Professional support services to the Planning Office of the Attorney General's Office, for the analysis, consolidation, and generation of queries, preparation of control panels and information reports, resulting from the evaluation process and monitoring of missionary management, in the Oracle BI tool, to have a space accessible to all dependencies, for monitoring and consulting the measurements made by the information management unit that contributes to developing interoperability, testing and implementation of systems information SIM - STRATEGOS. Besides, support for the specification, monitoring, and implementation of descriptive and data analytics models for the SIM missionary system and support and monitoring of the Enterprise Architecture (EA) project.

**Technologies:** SQL Server, Oracle, Oracle BI-Publisher, Power BI

**USAID – MSI**

**Bogotá, D.C., Colombia**

**Consultant – Contractor (Professional Services)**

September 28th, 2017 – September 28th, 2018

**Duties/Functions:** Technologically support the group of plan contracts in the maintenance of the Plan Contract information system and its database, as well as the construction of ETLs for the processing and loading of peace contracts in the system. Also, analysis and design of new service-oriented software architecture following the guidelines and policies of the Information Technology Office of the National Planning Department, applying patterns such as MVC and data visualization tools such as AmChart., As well as the implementation of N-Layers according to the needs of functional users.

**Technologies:** SQL Server, C#, Web Forms, ASP MVC, AmChart

**Jardín Botánico de Bogotá “José Celestino Mutis”**

**Bogotá, D.C., Colombia**

**Consultant – Contractor (Professional Services)**

June 14th, 2017 – September 14th, 2017

**Duties/Functions:** Advise and support the orientation of the institutional processes that strengthen the information systems and the technology infrastructure implemented in the Botanical Garden, based on institutional projects that have a technological component. Preparation of diagnosis and improvement proposals for the technological component of the Jardín Botánico de Bogotá.

**Technologies:** Analysis and diagnosis of information systems developed with different technologies. PHP, Mongo DB, Maria DB, ESRI Arcgis, Java, Oracle, MySQL, PostgreSQL

**Ministerio de Salud y Protección Social**

**Bogotá, D.C., Colombia**

**Consultant – Contractor (Professional Services)**

June 9th, 2015 – July 31th, 2017

**Duties/Functions:** Provide support for the coordination and monitoring of software projects for the ECAT subaccount and the FOSYGA website. Ticket follow-up leader for all FOSYGA business lines and SCRUM committee for the approval of new developments. Support for the coordination of activities related to technology in front of the trustee, auditing firm, and auditing firm. Support the Social Protection Fund Administration Directorate with the analysis, verification, processing, and cross-checking of information from internal and external sources, involved in the claims processes presented to Fosyga. Support the Directorate of Administration of Social Protection Funds in the analysis, structuring, and consultation of information from different databases that support the Social Security System in Health for decision-making by managers. Support to the Directorate of Administration of Social Protection Funds in the technical analysis of technology-related contracting processes. Design and development of the website of the Entidad Administradora de los Recursos de Seguridad Social en Salud.

**Technologies:** SQL Server, C#, Web Forms, ASP MVC, DNN Dot Net Nuke

#### **IT Plus Consultoría SAS**

**Bogotá, D.C., Colombia**

**Solution Architect / Senior Software Engineer**

January 1st, 2016 – June 30th, 2016

**Duties/Functions:** Activities related to Solution Architecture, Software Design, and Development using Microsoft .NET, ASP NET Web Api, ASP MVC, Angular JS, Entity Framework, among others. Structuring and creation of databases from the information collected from the different territorial entities that have Early Childhood assignments and the creation of reports and queries for functional users.

**Technologies:** SQL Server, C#, Microsoft .NET, ASP NET Web Api, ASP MVC, Angular JS, Entity Framework

#### **Organización Mundial para las Migraciones OIM – Unidad de Víctimas**

**Bogotá, D.C., Colombia**

**Consultant – Contractor (Professional Services)**

March 3rd, 2016 – April 29th, 2016

**Duties/Functions:** Identify and document the technological needs to have an information system regarding the collective repair route. Design, document, and propose adjustments in the procedures performed. Document the functional and technical requirements and analyze them. Review and analyze the previously built documentation related to the scope of the project.

**Technologies:** Review of developed information systems in SQL Server, C#, Microsoft .NET, ASP NET, Web Forms

#### **Ministerio de Comercio, Industria y Turismo - DIAN**

**Bogotá, D.C., Colombia**

**Consultant – Contractor (Professional Services)**

February 23rd, 2016 – August 22nd, 2016

**Duties/Functions:** Professional services to the Information Systems Office in the implementation of adjustments that allow the strengthening of the traceability of foreign trade procedures, to exchange information between the customs management processes of the National Tax and Customs Directorate - DIAN, and the Ventanilla Única para Comercio Exterior - VUCE, specifically on issues of foreign trade, simultaneous inspection and trade defense.

**Technologies:** Java, Restful, Oracle

#### **Departamento Administrativo Nacional de Estadística - DANE**

**Bogotá, D.C., Colombia**

**Consultant – Contractor (Professional Services)**

May 22th, 2015 – December 30th, 2015

**Duties/Functions:** Provision of professional services to carry out the maintenance, development of new functionalities of the module of Generation of forms, generation of inputs and preparation of field operation activities, under Java Platform, required in the pre-census phase of XVIII Censo Nacional de Población y VII de Vivienda.

**Technologies:** Java EE, Restful, Oracle

## **Organización Mundial para las Migraciones OIM – Unidad de Víctimas**

**Bogotá, D.C., Colombia**

**Consultant – Contractor (Professional Services)**

December 1st, 2014 – June 30th, 2015

**Duties/Functions:** Provide support in the documentation of the technological requirements of the Directorate of Repairs in the framework of the implementation of the Single Route. Provide support in the analysis and development of process flows for the technical documentation of the procedures and the design and construction of technical requirements (Use Cases) of the Dirección de Reparaciones of the Unidad para las Víctimas.

**Technologies:** Review of developed information systems in SQL Server, C#, Microsoft .NET, ASP NET, Web Forms

## **Departamento Nacional de Planeación**

**Bogotá, D.C., Colombia**

**Consultant – Contractor (Professional Services)**

May 7th, 2012 – June 18th, 2015

**Duties/Functions:** Coordinate and advance the activities for the implementation of the infrastructure necessary to launch the Information System of the Unique Territorial Form (SISFUT Web). Coordinate and carry out the activities for the analysis and specification and new improvements to be incorporated into the SISFUT. Architecture, development, and implementation of the agreed improvements to the system, as well as the technical support of the application and Training for users. Support the DNP in the activities corresponding to the development, maintenance, and improvement of computer tools of the Directorate of Territorial Development (FUT, SISFUT, Performance Measurement, Web Contest). Architecture, design, and development of a web computing tool Information System of the Territorial Single Format. Architecture, development, and implementation of the "Best Development Plan" Web System. Support the generation of reports of the Unique Territorial Form (FUT). Definition, specification, design, validation, and support in the implementation of a Business Intelligence solution from different sources of territorial information data. Support the review, validation, and consolidation of the information necessary to carry out the monitoring report to the General Purpose and Special Assignments SGP as well as active participation in the creation of a model for strengthening territorial management. Participate in the design, parameterization, and updating in the CHIP of the FUT categories.

**Technologies:** SQL Server, C#, Web Forms, ASP MVC

## **Tradepaq TRM**

**Bogotá, D.C., Colombia**

**Senior Software Engineer**

July 18th, 2011 – May 11th, 2012

**Duties/Functions:** Senior Member of Technical Architecture Group which oversees giving guidelines and design the new features of the TradepaqTRM System for Commodities and Risk Management. Task planning and, architecture, and special development for different customers in the USA, Europe, and Asia. Leader assistant in developing of a new customized framework based on Selenium - JUnit for automated tests. Member of Technical Architecture Group. Designing, developing, testing new client requirements. Provide support, maintenance, and updates to the TRM web application. Responsible for following guidelines about code and its documentation on developed requirements. Version Control of the source code. Working with users to establish requirements and determine priorities. Assist to develop on new customized automated test framework based on Selenium.

Developing components & functionality to existing system TRM in Java. Future Upload. Automated test and investigating alternatives to improve CSS load in front view and fix and update newly found bugs.

**Technologies:** Java EE, Restful, Oracle, SQL Server, Selenium

## **Firmware SAS**

**Bogotá, D.C., Colombia**

**Senior Software Engineer**

September 28th, 2010 – July 18th, 2011

**Duties/Functions:** Task planning and execution architecture, design, and development solutions. A senior leader of the development team. System deployment of client maintainer I2b - Entel (Chile). Development of insurance sales system for Process and liberty SOAT insurance. Designing, developing, testing new client requirements.

Responsible for guidelines about code and documentation. Management and Configuration of Version Control. Working with users to establish requirements and determine priorities. Fix and update newly found bugs on existing own product software. Project development and testing. Make calculations. Meeting clients face to face at their offices. Delegating work and activities to junior IT staff.

**Technologies:** Java EE, SQL Server

## **Assenda - Grupo Carvajal**

**Bogotá, D.C., Colombia**

**Solution Architect / Senior Software Engineer**

July 1st, 2010 – September 27th, 2010

**Duties/Functions:** Planning activities, architecture, and design and software development. Responsible for architecture and design solutions as well as the estimation of time and staff resources for the implementation of custom software, under the supervision of project manager. Java Architecture Rol and responsible for guidelines about code and documentation. Architecture and design of the first phase of the information system of the Secretaría de Bienestar de la Alcaldía de Medellín. Follow the CMMI process and contribute to improving guidelines. Working with the developer team to establish requirements and determine priorities. Designing and specifying architecture for SIBIS software.

**Technologies:** Java EE, SQL Server

## **Departamento de Estado USA – US Embassy, Bogotá, Colombia**

**Bogotá, D.C., Colombia**

**Computer Engineer**

October 29th, 2006 – January 16th, 2010

**Duties/Functions:** Advice and support in bilateral assistance programs between the governments of the United States and the Republic of Colombia. Planning, implementation, monitoring, and tracking the various activities required by the data network of narcotics affairs section of technology and resources that are given as part of bilateral aid. Software project management, electrical and infrastructure as part of the state support organizations such as ministries, military, and police, health agencies. Planning and specification of requirements for the purchase of hardware, software, and physical infrastructure for the department and the Colombian government entities. Handle of ERP Ariba (State Department) to control warehouse inventory, purchasing, and resource tracking. Design and development of computer programs and distribution of technology to improve process control and analysis elements donation were given by the American government. Support the network of the State Department both end-user level, as maintenance and technology infrastructure changes. Monitoring network performance. Updating and monitoring IT user accounts. Maintenance & management of the Critical Windows-based Server Environment. Maintaining up to date Antivirus levels on all machines company-wide. Working on Active Directory accounts, configuration, and encryption of Blackberrys & laptops. Managing and monitoring of backups in multiple locations. Providing maintenance support and break-fix solutions. Liaising & meeting with external suppliers of IT services. Producing reports for senior managers. Troubleshooting technical problems and implementing solutions. Purchasing of IT Equipment and software in line within agreed budgets. Supporting a multi-site IT infrastructure of at least 100 employees. Responsible for the fast and accurate

troubleshooting of reported faults. Providing technical support via helpdesk systems for a wide range of internal & external applications. Installing and maintaining databases. Administration of the database including performance monitoring and tuning. Taking part in the preparation and execution of technical tests. Populating a database with new information or transfer existing data into it. Creating backup copies of data and daily maintenance of firewall protection and file security. Designing, developing, testing new client requirements. Managing projects from conception, pre-production through to completion. Providing technical support to the project team and wider regional teams. Responsible for overseeing the review, initiation, and execution of contracts. Developing applications to support the End Monitoring User process. Provide support, maintenance, and updates existing inventory application, and others donated to the Colombian Government.

**Technologies:** SQL Server, C#, Web Forms, Visual Basic

## **FONADE – Agenda de Conectividad – Ministerio de Hacienda.**

**Bogotá, D.C., Colombia**

### **Consultant – Contractor (Professional Services) – Software Developer**

April 25th, 2005 – November 16th, 2006

**Duties/Functions:** Managing, reviewing, evaluating, technically tracking, and auditing the contract with companies of technology and software related to migration activities was also part of the responsibilities during the new software development and systems integration for the "Portal de Contratación".

It was required to provide technical support on the applications and new functionalities published in the "Portal de Contratación" (English: Procurement Portal of Colombia Government); to ensure the infrastructure's security; to document and provide the source codes, technical manuals, operation, and user assistance, under the guidelines given by the Technology Office of the Ministry of Treasury. The "Portal de Contratación" is a Web system that allows the national, departmental, and local agencies of GOC to enter the information of all procurement and solicitation processes to make it available to the Colombian citizens. Design and provide a functional architecture to support software "Portal de Contratación" according to the business requirements. Designing and specifying medium and large software components. Provide support, maintenance, and updates to the web application. Responsible for the completion of all documentation. Coordinate Test Plans and reports. Configuration management of the source code. Developing new components & functionality to existing systems, both back-end, and front-end. Involved in accurately providing estimated development times. Working on high volume transactional systems. Specification and evaluation of processes and needs related to the technological platform, to continuously improve the performance of the portal. Software Engineering applying efficient development processes of PMI for project management, UML, RUP, TSP, and PSP for development, and COBIT for project monitoring and behavior. Software development engineer using the best practices offered by CMMI and OOP. Analysis, design, and programming of reports and effective reports internally and externally of the organization about State Contracting. Oracle, OAS, Oracle Forms technologies.

**Technologies:** Java EE, Oracle, Oracle Forms, Oracle 11G OAS

## **Contaduría General de la Nación**

**Bogotá, D.C., Colombia**

### **Consultant – Contractor (Professional Services) – Software Developer**

October 27th, 2004 – May 20th, 2005

**Duties/Functions:** Development and Support Engineer for the "Boletín de Deudores Morosos del Estado" (English: Bulletin of the State of Defaulting Debtors) (BDME), this Web system at the General Accountant's Office was intended to allow general citizens to consult if they had monetary debts with the local and national state as a pre-requisite to be hired or be contracted by the government. Development of new requirements, modification, implementation, and performing tests of Web queries and reports for the BDME system and the "Saneamiento Contable" (English: Reorganization Accounting) system. Maintenance and protection of the database information, running under the Informix engine. Use Rational Unified Processes (RUP) and Unified Modeling Language (UML) for quality assurance. Providing architectural and technical guidance to product development and ensuring that the software engineering design process and quality practices are followed. Analyzing and writing product requirements, functional / design specifications, and test plans. Design and provide a functional architecture to support "Sistema Boletín de Deudores Morosos" (web system) and "Sistema de Saneamiento

Contable” according to the business requirements. Designing and specifying medium and large software components. Provide support, maintenance, and updates to the web application. Responsible for the completion of all documentation. Coordinate Test Plans and reports. Configuration management of the source code. Developing new reports of “Sistema Boletín de Deudores Morosos”. Working on high volume transactional systems.

**Technologies:** Informix

**Citytv - TV Ciudad Ltda. Casa Editorial El Tiempo**

**Bogotá, D.C., Colombia**

**Systems Engineer**

December 9th, 2002 – September 15th, 2004

**Duties/Functions:** I developed the application of Support for the process of Invoicing of the Area of Portfolio, which must be integrated with SAP System according to the business needs and associated with the ERP requirements like inventory, billing, accounting, and billing. The app was made with Visual Basic and Database SQL Server 2000. Rise of information with users of the area, design, programming, and documentation. I have analyzed and design the System for certification of nonconventional guidelines and Commercial Strategy. I also performed data migration activities for USC for Casa Editorial El Tiempo (CEET) from different sources like the commercial system and others. At the same time, I worked in SAP developments required by the Financial Section to achieve and integrate financial information from different companies of CEET.

Design and provide functional architecture according to the business requirements. Analysis and specifying business requirements. Software development. Provide support, maintenance, and updates to the application. Responsible for the completion of all documentation. Coordinate and execute Test Plans and reports.

**Technologies:** SQL Server, Visual Basic

**Syscom Sistemas**

**Bogotá, D.C., Colombia**

**Systems Analyst / Requirements**

October 1st, 2002 – December 5th, 2002

**Duties/Functions:** In my short time in Syscom I have analyzed and designed part of the software for Managing and Control of Clinical and Pathological Studies under Windows NT platform and Visual Fox. I also worked with the Manager in data migration processes related to Health Information registered in the Secretaría Distrital de Salud. Design and provide functional architecture according to the business requirements. Analysis and specifying business requirements.

**Technologies:** SQL Server, Visual Basic

**Linpao Asesores de Seguros**

**Bogotá, D.C., Colombia**

**Systems Engineer**

June 13th, 2002 – September 30th, 2002

**Duties/Functions:** Supporting legacy systems with backups of all cases to/from parallel systems; also, assurance, financial, accountant, invoices, and inventories system, including database management. Network Administration. Hardware and maintenance of full hardware, including servers, workstations, routers, switches. Customer support and providing technical advice to the management about new acquisitions and support system for an intranet for employees, including designing and modification. Monitoring network performance. Updating and monitoring IT user accounts. Maintenance & management of the Critical Windows-based Server Environment. Maintaining up to date Antivirus levels on all machines company-wide. Working on Active Directory accounts. Managing and monitoring of backups. Providing maintenance support. Liaising & meeting with external suppliers of IT services. Producing reports for senior managers.

**Technologies:** SQL Server, Visual Basic



**Tecasoft**

**Bogotá, D.C., Colombia**

**Systems Analyst / Developer**

May 1st, 2001 – August 30th, 2001

**Duties/Functions:** Development of software for mobile devices like Pocket PC for a third company. The solution consisted of showing and allowing to the sale agent, review the daily route to attend the clients, and capture the product orders. After that, load that information to a central database inside the infrastructure company. Analysis and specifying business requirements, software development, planning, and executing test plans and cases.

**Technologies:** Windows CE, Access for Mobile