Data analytics leader | Data scientist | Machine learning



+57 (301) 787-5697



LinkedIn



andres.perez.c@outlook.com

About me -

Doctor (c) in Mathematical Engineering, Fulbright and Colfuturo scholar with 20 years of experience in data analysis, team leadership, and consulting in Colombia and abroad. Expert in spatiotemporal models, social network analysis, econometrics, and machine learning for data-driven decision-making using R, Python, and SQL. Skilled in strategic impact assessment, prediction, and visualization, with a strong background in design thinking, Scrum, strategic foresight, and business intelligence.

Skills -

Spanish (native)

English & French

R & Python & SQL

Microeconometrics

Machine Learning

Public Policy Analysis

Innovation & Design Thinking

Effective Communication

Conflict Resolution

Decision Making

Planning and Execution

Large Team Management

Strategic Leadership

(*)[The skill scale is from 0 (Fundamental Awareness) to 6 (Expert).]

Professional Experience

| Currently | Head of the Analytics Center for Policing National Police of Colombia |
|------------------------|---|
| 2023-2024 | Liaison Officer Management of investment project financing and advisory for high- level decisions Ministry of the Interior |
| 2022-2023 | Professor of Organizational Management/Planning and Public Management University of Rosario |
| 2022-2023 | Head of Institutional Measurement and Evaluation Design of the national-level indicator evaluation model Planning Office - National Police of Colombia |
| 2023 | Professor of Data Science and Analytics - Master's in Journalism and Digital Communication University of La Sabana |
| 2022 | Designer of the Virtual Course: Design and Visualization of Information for Decision Making University of Ibagué |
| 2022 | Chief of Citizen Security Operations Coordinated large-scale security operations, significantly improving public safety indicators. Metropolitan Police of Ibagué |
| 2022 | Lead Researcher in Data Analysis and Visualization Marathon Edgelands Institute |
| 2021-2022 | Head of the Analytics Center for Policing National Police of Colombia |
| 2017-2022 | WebApp Designer and Data Analyst Convicubo.co Diagnostics of Coexistence and Citizen Security |
| 2020 | Data Scientist 'Hands on Data' Development Bank of Latin America (CAF) - Caoba Alliance |
| 2018-2019 | Chief of Citizen Security Operations Department of Guainía Police |
| 2016-2018 | Deputy Director of the Anti-Drug School / ERCAIAD Managed anti-drug training programs, strengthening institutional ca- |
| | pacities in multiple countries. OAS - National Police of Colombia - US Embassy-INL |
| 2016-2018 | · |
| 2016-2018 2015-2016 | OAS - National Police of Colombia - US Embassy-INL Instructor in Anti-Drug Intelligence and Strategic Foresight Courses |
| | OAS - National Police of Colombia - US Embassy-INL Instructor in Anti-Drug Intelligence and Strategic Foresight Courses Argentina, Colombia, Ghana, El Salvador, Paraguay, and Trinidad and Tobago Head of the Research Area |
| 2015-2016 | OAS - National Police of Colombia - US Embassy-INL Instructor in Anti-Drug Intelligence and Strategic Foresight Courses Argentina, Colombia, Ghana, El Salvador, Paraguay, and Trinidad and Tobago Head of the Research Area Police Postgraduate School 'Miguel Antonio Lleras Pizarro' Responsible for the Center for Hemispheric Security Prospective |

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Education / Training

| Currently | Ph,D. in Mathematical Engineering (c) EAFIT University | Medellín-Colombia |
|-----------|---|--------------------------------|
| 2010 | Master's in Administration and Organizations Université de Grenoble Alpes | Grenoble-France |
| 2021 | Specialist in Security Police Postgraduate School | Bogotá DC-Colombia |
| 2014 | Specialist in Applied Mathematics Sergio Arboleda University | Bogotá DC-Colombia |
| 2007 | Specialist in Public Finance Management Caribbean University Corporation | Sincelejo-Sucre |
| 2012 | Business Administrator EAN University | Bogotá DC-Colombia |
| 2003 | Police Administrator General Francisco de Paula Santander Police Cade | Bogotá DC-Colombia t School |
| 2019 | Summer School: Economics of Crime, Drugs, and C University of the Andes - Bogotá DC | ther Risks |
| 2016 | Course in Intelligence, Surveillance, and Reco Lackland-Texas US Air Force Inter-American Air Forces Academy (1 | |
| 2014 | Fulbright Mid-Career Hubert H. Humphrey Fellowsh and Public Administration US Department of State-Fulbright-University of Mir | Minneapolis |

Publications

2021

Sector.

| Currently | Columnist at La Silla Vacía https://www.lasillavacia.com Expert opinion columnist. |
|-----------|---|
| 2024 | Book chapter https://revistalogos.policia.edu.co:8443/omp/index.php/editorial/catalog/book/102/chapter/195 Methodology for Intermediate Measurement of the Impact of the Prevention Efforts on Extortion and Human Development, in book: Data Analytics for Citizen Security (pp. 39-85). |
| 2024 | Book chapter https://revistalogos.policia.edu.co:8443/omp/index.php/editorial/catalog/book/102/chapter/196 Detection of Atypical Data (Outliers) for the Reduction of the Homicide Rate in Colombia, in book: Data Analytics for Citizen Security (pp. 87-111). |
| 2024 | Book chapter https://revistalogos.policia.edu.co:8443/omp/index.php/editorial/catalog/book/102/chapter/197 Correlation of Homicide Modalities with Impactful Crimes in Atypical Quadrants of the National Police of Colombia, in book: Data Analytics for Citizen Security (pp. 113-140). |
| 2024 | Book chapter https://revistalogos.policia.edu.co:8443/omp/index.php/editorial/catalog/book/102/chapter/198 CONVICUBO: Methodology for Strengthening Coexistence and Citizen Security, in book: Data Analytics for Citizen Security (pp. 141-168). |
| 2022 | Scientific Article https://www.mdpi.com/2414-6366/8/1/30 |

Identification of Hazard and Socio-Demographic Patterns of Dengue

Infections in a Colombian Subtropical Region from 2015 to 2020: Cox

Evolution of Citizen Security Indicators as a Consequence of Health

Measures, in book: Leveraging Data for Decision Making in the Public

Book Chapter https://scioteca.caf.com/handle/123456789/1776

Regression Models and Statistical Analysis.

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Publications

2021 **Conference Presentation**

> Intermediate Impact Measurement Methodology for Extortion Prevention and Human Development. VI National Congress of Political

Science: Democracies and Populisms Amid Global Crises.

2019 Scientific Poster

> Improvement of IDW Interpolation Using Mahalanobis Distance in Criminal Analysis. I Southwestern Meeting of Mathematics and Ap-

plied Mathematics.

2017 Book

> Police for Human Development (PDH). Methodology for Evaluating Citizen Security and Police Forces Using Fuzzy Mathematics. ISBN:

978-958-749-683-3

2016 Scientific Article http://www.scielo.org.co/scielo.php?script=sci_

arttext&pid=S1794-31082016000200010

Collective Intelligence: Short-Term Anticipation for Coexistence

Problems. Criminality Magazine 58 (2): 223-240

Professional Achievements

- Conceptualization and Structuring of the project "Studies, designs and implementation of the project for territorial security and coexistence and development of the octagonal anticipation platform - PLÁTANO" for 210,930,000,000.00 COP - 53,625,175.03 USD (1 USD = 3,933.41 COP), financed by the National Fund for Security and Coexistence FONSECON.
- · Designer and implementer of the evaluation of National Police commanders through the Police for Human Development (PDH) model, Resolution 1002 of 21/03/2023.
- · Director of pilot tests and experimentation of software for the collection and analysis of georeferenced security perception and predictive indicators of intermediate impact in the city of Ibaqué in 2022.
- · Creator of the strategy for crime reduction 'Outlier Quadrants' with univariate and multivariate methods. Result: November and December 2021 had the lowest homicide rates in 19 years.
- Mentor at the Adaptive Social Innovation Laboratory (LISA). Presidential Council for Youth in alliance with USAID, ACDI/VOCA, Corona Foundation, and EAN University.
- Fulbright Scholarships Evaluator.
- Methodologist of the Strategic Renewal and Police Innovation Committee for the eradication of illicit crops (CREIP-ECI) in the Directorate of Anti-Narcotics of the National Police of Colombia.
- · Responsible for the Strategic Review Analysis Table and Innovation Committee against the Illicit Drug System (CREI-CSDI) in the Vice Presidency of the Republic of Colombia.
- Responsible for the innovation team for the restructuring of the anti-narcotics strategy.

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Strategic Leadership

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Interpersonal Skills

- · Research and innovation spirit.
- · Calculated risk-taking.
- · Emphasis on teamwork.
- · Leadership and decision-making under pressure.
- · Collective solution building.
- Negotiation to achieve goals.
- · Critical thinking.

Awards

| 2024 | Distinguished Services Medal Special Class, Second Time, |
|------|--|
| 2023 | 05/11/2024, R 03826. Ministry of the Interior: Medal of Merit Luis Carlos Galán Sarmiento, |
| 2023 | First Time, 07/12/2023, RM 2127. Planning Office Medal "Colonel Mario Castillo Ruiz" First Time, 14/07/2023, R 2258. |
| 2022 | 20 Years of Service Medal, 05/12/2022, R 0818. |
| 2020 | Honorary Mention, Sixth Time, 06/12/2020, R 01611. |
| 2019 | Honorary Mention Civil Order of Merit, Estrella Fluvial de Oriente, First |
| | Time, 18/07/2019, D 428. |
| 2017 | Honorary Mention, Fifth Time, 06/12/2017, R 00930. |
| 2017 | 15 Years of Service Medal, 05/12/2017, R 0818. |
| 2017 | Distinguished Services Medal Special Class, First Time, 05/11/2017, |
| 2016 | R 05289. Presidential Citation of Military and Police Victory, Unique, |
| 2010 | 26/09/2016, R 06232. |
| 2016 | Francisco José de Caldas Doctoral Scholarship |
| 2015 | Winner of the Best Innovation Project of the Leadership for Bogotá |
| | Program. |
| 2014 | Order of the Community of American Police - AMERIPOL |
| 2014 | Special, 30/12/2014, NR 019. |
| 2014 | Honorary Mention, Fourth Time, 06/12/2014, R 05555. |
| 2013 | US Department of State-Fulbright Scholar for the Hubert H. Humphrey Program. |
| 2011 | Colfuturo Scholar for Postgraduate Studies Abroad. |
| 2011 | Honorary Mention, Third Time, 06/12/2011, R 01293. |
| 2011 | Civic Medal of Cartagena, Unique, 09/11/2011, D 1404. |
| 2009 | Badge of the Carabineros School "Rafael Nuñez", Unique, |
| 2003 | 15/04/2009, R 061. |
| 2008 | Honorary Mention, Second Time, 06/12/2008, R 01902. |
| 2008 | "Order of Marshal Sucre" Decoration Governor of the Department of |
| | Sucre, First Time, 04/11/2008, D 1333. |
| 2007 | "Honor to Merit" Decoration Mayor of Sincelejo, First Time, |
| | 07/11/2007, D 294. |
| 2007 | Police Professor Badge, First Time, 25/02/2007, R 00563. |
| 2005 | Honorary Mention, First Time, 06/12/2005, R 04911. |
| 2004 | Citizen Merit Mayor's Office Local Ciudad Bolívar, Special, |
| 2003 | 11/11/2004, R 214. Honorary Decree of the "Congress of the Republic", Special, |
| _555 | rionard, beared of the congress of the Republic, opening, |

01/10/2003, R 2028.