OSMAR BOLIVAR

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EDUCATION

Master of Arts | *Policy Economics*   2016 – 2017
Williams College   USA

Master of Science | *Applied Economics*   2015 – 2016
Universidad Andina Simón Bolívar   Bolivia

Bachelor's Degree | *Economics*   2006 – 2010
Universidad Mayor de San Andrés   Bolivia

WORK EXPERIENCE

CEO / Founder   Ago. 2024 – Present
ANALYTICS, VALUES AND INTELLIGENCE LABORATORY (AVI-Lab)   Bolivia

- Lead AVI-Lab's strategic vision, and actively participate in the design and implementation of innovative solutions that combine economics, data, and artificial intelligence to foster inclusive development.

Lead Specialist in Artificial Intelligence for Economic Research   Feb. 2024 – Jul. 2025
MINISTRY OF ECONOMY AND PUBLIC FINANCE   Bolivia

- Directed AI and data science initiatives to support evidence-based economic policymaking (e.g., predictive models and advanced analytics to enhance real-time macroeconomic monitoring and decision-making).
- Led the establishment of the Ministry's AI Laboratory in cooperation with the IDB.

Lead Researcher   May 2021 – Feb. 2024
MINISTRY OF ECONOMY AND PUBLIC FINANCE   Bolivia

- Led research projects on socioeconomic trends and policy evaluation, utilizing advanced econometrics, machine learning, and big data analytics.
- Provided direct technical advice to senior leadership, including the Minister of Economy.
- Published peer-reviewed research articles in the Ministry's economic journal.

Consultant, Economic Integration in Latin America Project   Apr. 2020 – Mar. 2021
DEVELOPMENT BANK OF LATIN AMERICA (CAF)   Bolivia

- Assessed the economic impact of transport infrastructure in Bolivia, Ecuador, and Paraguay using econometric and remote sensing methodologies.

Economist, Economic Modelling   Aug. 2017 – Feb. 2021
UNIDAD DE ANÁLISIS DE POLÍTICAS SOCIALES Y ECONÓMICAS (UDAPE)   Bolivia

- Led modelling and analysis of macroeconomic and social policies, designing advanced econometric tools to support policy formulation.
- Coordinated multi-institutional research with international organizations (CAF, UNFPA).

Consultant, Strengthening Economic Development Research   Feb. 2018 – Oct. 2018
DEVELOPMENT BANK OF LATIN AMERICA (CAF)   Bolivia

- Applied spatial econometric techniques to evaluate local public investment effectiveness and its spillover effects on development outcomes.

Researcher   Jan. 2015 – Aug. 2016
MINISTRY OF ECONOMY AND PUBLIC FINANCE   Bolivia

Economist, Real Sector   Apr. 2013 – Dec. 2014
UNIDAD DE ANÁLISIS DE POLÍTICAS SOCIALES Y ECONÓMICAS (UDAPE)   Bolivia

Economist, Fiscal Sector   Oct. 2012 – Dec. 2012
UNIDAD DE ANÁLISIS DE POLÍTICAS SOCIALES Y ECONÓMICAS (UDAPE)   Bolivia

Technical Assistant, Fiscal Sector   Sept. 2011 – Sept. 2012
UNIDAD DE ANÁLISIS DE POLÍTICAS SOCIALES Y ECONÓMICAS (UDAPE)   Bolivia

PEER-REVIEWED JOURNAL ARTICLES

Bolivar, O. (2025). **High-frequency Inflation Forecasting: A Two-step Machine Learning Methodology**. *Latin American Journal of Central Banking*, In Press, Corrected Proof, 100172.

Bolivar, O. (2024). **GDP Nowcasting: A Machine Learning and Remote Sensing Data-based Approach for Bolivia**. *Latin American Journal of Central Banking*, 5(3), 100126.

Bolivar, O. & Huanto, C. (2023). **Geopolitical Risk Shocks: Macroeconomic Effects in Bolivia, Chile, and Peru**. *Cuadernos de Investigación Económica Boliviana*, 6(2): 62-83.

Bolivar, O., Huanto, C. & Teran, R. (2023). **Inflation Expectations: Dynamics and Effects for South America**. *Cuadernos de Investigación Económica Boliviana*, 6(1): 3-24.

Bolivar, O. (2022). **Fiscal Multipliers: Empirical Evidence for a Cost-Effective Allocation of Public Investment**. *Cuadernos de Investigación Económica Boliviana*, 5(2): 1-28.

Bolivar, O. (2021). **Boyanza Tributaria: Relación con la sostenibilidad fiscal y estabilizadores automáticos**. *Cuadernos de Investigación Económica Boliviana*, 4(2): 53-95.

Bolivar, O. (2016). **Bolivianization (De-dollarization) and Effectiveness of the Monetary Policy**. *Cuadernos de Investigación Económica Boliviana*, 1(2): 1-40.

Bolivar, O. & D. Ugarte (2015). **Domestic Demand as Engine of the Economic Growth in Bolivia**. *Cuadernos de Investigación Económica Boliviana*, 1(1): 1-27.

Ugarte, D. & Bolivar, O. (2015). **The Effect of Income Redistribution on Poverty Reduction of Bolivia**. *Cuadernos de Investigación Económica Boliviana*, 1(1): 1-25.

Ugarte, D. & Bolivar, O. (2015). **La Relación Precio del Petróleo y Crecimiento Económico en Bolivia: El Rol de la Política Económica**. *Revista de Análisis del Banco Central de Bolivia*, 22(1): 9-40.

BOOK CHAPTERS

Bolivar, O. & Mendez, C. (2025). **Predicting community-level poverty in Bolivia: Insights from satellite imagery, census data, and spatial modeling**. *Nagoya University (Ed.), Revisiting the Poverty-Growth-Inequality Triangle in the Post-Pandemic Era (in progress)*. Japan: Routledge – Taylor & Francis Group.

Bolivar, O. (2020). **Evaluación de impacto de la infraestructura vial en el crecimiento económico: Una aproximación con base en información satelital de luminosidad para Bolivia**. *CAF-UDAPE, Osmar Bolivar (Ed.), Evaluación de impacto de la infraestructura vial en Bolivia* (pp. 11-70). La Paz, Bolivia.

Bolivar, O. & Ugarte, D. (2020). **Evaluación de impacto de la infraestructura vial sobre las condiciones socioeconómicas de la población**. *CAF-UDAPE, Osmar Bolivar (Ed.), Evaluación de impacto de la infraestructura vial en Bolivia* (pp. 71-117). La Paz, Bolivia.

Ugarte, D. & Bolivar, O. (2018). **Descentralización en Bolivia: Eficacia y Externalidades**. *CAF-INESAD-ABCE & Beatriz Muriel (Ed.), Investigaciones para el Desarrollo Económico de Bolivia* (pp. 113-168). La Paz, Bolivia.

PROCEEDINGS / WORKING PAPERS

Bolivar, O., Yarygina, A. & Radics, A. (2025). **When Population Counts: Intergovernmental Transfers and Local Fiscal Performance in Bolivia**. *Working Paper in progress*.

Bolivar, O. & Huanto, C. (2025). **Sentiment, Cryptocurrency and Inflation: A Transmission Chanel in Bolivia**. *Available at SSRN*.

Bolivar, O., Canavire-Bacarreza, G. & Balthrop. A. (2025). **Hit the Road Jack: High-Quality Roads, Poverty and the Middle Class in Ecuador**. *Proceeding Paper – 18th Meeting LACEA Impact Evaluation Network,*

2025 RIDGE May Forum..

Bolivar, O. (2024). **Weekly Inflation Forecasting: A Two-Step Machine Learning Methodology**. *Available at SSRN*.

Bolivar, O. & Huanto, C. (2024). **Tensiones Geopolíticas: Efectos Macroeconómicos en Bolivia, Chile y Perú**. *Proceeding Paper - Call for Papers: 2024 Meeting of Economists of Bolivia*, Central Bank of Bolivia.

Bolivar, O. (2023). **Evolución de la pobreza en las comunidades de Bolivia entre 2012 y 2022: Un enfoque de machine learning y teledetección**. *MPRA Paper from University Library of Munich*.

Bolivar, O. (2022). **Dinámica Inflacionaria, Crecimiento Económico y Empleo en los contextos de pandemia y pospandemia para América del Sur**. *Proceeding Paper - First Place in the Call for Papers: 2022 Meeting of Economists of Bolivia*, Central Bank of Bolivia.

Bolivar, O. (2022). **Roads illuminate development: Using nightlight luminosity to assess the impact of transport infrastructure**. *Research Department Working Papers 1910*, CAF - Development Bank of Latin America.

Bolivar, O. (2017). **Desdolarización en Bolivia: Interacción con la Política Monetaria y el Tipo de Cambio**. *Proceeding Paper - Call for Papers: 2017 Meeting of Economists of Bolivia*, Central Bank of Bolivia.

Honors and Awards

First Place, 2023 Central Bank Award, Center for Latin American Monetary Studies (CEMLA).
For the research: "GDP Nowcasting: A Machine Learning and Remote Sensing Data-Based Approach for Bolivia"

First Place, 2022 Meeting of Economists of Bolivia, Central Bank of Bolivia.
For the research: "Dinámica Inflacionaria, Crecimiento Económico y Empleo en los Contextos de Pandemia y Pospandemia para América del Sur"

Finalist & Funding, 2020 Research Proposal Call, Development Bank of Latin America (CAF).
For the project: "Roads Illuminate Development: Using Nightlight Luminosity to Assess the Impact of Transport Infrastructure"

Winner & Funding, 2018 Research Proposal Call, Development Bank of Latin America (CAF).
For the project: "Descentralización en Bolivia: Eficacia y Externalidades"

First Place, 2015 Meeting of Economists of Bolivia, Central Bank of Bolivia.
For the research: "La Relación Precio del Petróleo y Crecimiento Económico en Bolivia: El Rol de la Política Económica"

Teaching Experience

Fiscal Sector - Master in Applied Economics and Public Policy	2024 - Current
Universidad Andina Simón Bolivar	Bolivia

Certifications and Courses

Certificate Program in Applied Generative AI — **Johns Hopkins University**	Ongoing
Deep Learning Specialization — **DeepLearning.AI**	2024
Machine Learning Specialization — **DeepLearning.AI & Stanford University**	2023
Multidisciplinary Program in Data, Programming, and AI — **Buenos Aires University**	2022
Training Course on Space Technology for Bolivia — **Wuhan Research Institute of Posts and Telecommunications (China)**	2022
R and GIS (Programming in R for Geographic Information Systems) — **MappingGIS, Spain**	2020
Remote Sensing in QGIS (Satellite Imagery Processing) — **MappingGIS, Spain**	2019
Dynamic Stochastic General Equilibrium Models — **International Monetary Fund**	2018

Skills

Languages: Spanish (Native), English
Programming/Software: Python, R, QGIS, STATA, MATLAB, E-views
Document Creation: Microsoft Office, LaTex, Markdown