

# ALVARO J. RIASCOS VILLEGAS

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## CURRENT POSITION

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8/05-	<b>UNIVERSIDAD DE LOS ANDES</b> <a href="http://www.uniandes.edu.co">www.uniandes.edu.co</a> Associate Professor, Department of Economics	Bogotá, COLOMBIA
9/08-	<b>QUANTIL   MATEMÁTICAS APLICADAS</b> <a href="http://www.quantil.com.co">www.quantil.com.co</a> Founder, Partner & Co-Director	Bogotá, COLOMBIA
12/17-	<b>COLOMBIAN MATHEMATICAL SOCIETY</b> <a href="http://www.scm.org">www.scm.org</a> Board Member and President, Committee of Industrial & Applied Mathematics	Bogotá, COLOMBIA

## EDUCATION

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3/93-3/96	<b>INSTITUTO DE MATEMATICAS PURAS (IMPA)</b> Ph.D Applied Mathematics. M.Sc. Applied Mathematics.	Rio de Janeiro, BRAZIL
8/87-8/92	<b>UNIVERSIDAD DE LOS ANDES</b> B.S Mathematics (Minor in Physics).	Bogotá, COLOMBIA

## FELLOWSHIPS AND PRIZES

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- Fellowship: Banco de la Republica of Colombia (1998-99)
- Fellowship: Government of Brazil (1993-1996)
- Prize: Cental Banking Rodrigo Gomes 2005.
- Prize: First Place Olimpiadas Nacionales de Física (1987)
- Prize: Tenth Place Olimpiadas Nacionales de Matemáticas (1987)

## VISITING POSITIONS

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12/17- 12/17	<b>HARVARD T.H. CHAN SCHOOL OF PUBLIC HEALTH</b> <i>Visiting Scholar</i>	Boston, Massachusetts
12/14- 12/14	<b>UNIVERSITY OF CALIFORNIA BERKELEY –</b> Industrial Engineering and Operations Research <i>Visiting Scholar</i>	Berkeley, California
9/14 – 9/14	<b>STANFORD GRADUATE SCHOOL OF BUSINESS</b> <i>Visiting Scholar</i>	Palo Alto, California
5/14 – 5/14	<b>CALIFORNIA INSTITUTE OF TECHNOLOGY</b> <i>Visiting Scholar</i>	Pasadena, California
5/13 – 5/13	<b>MEDS – KELLOG SCHOOL OF MANAGEMENT</b> <i>Visiting Fellow</i>	Evanston, Illinois
9/10 – 9/10	<b>UNIVERSIDAD DE CHILE</b> <i>Visiting Scholar</i>	Santiago de Chile, Chile.
5/05 – 6/05	<b>COWLES FOUNDATION FOR ECONOMIC RESEARCH (Yale University)</b>	New Haven, U.S.A.

*Visiting Scholar*

1/05 – 1/05	<b>INSTITUTO DE MATEMATICAS PURAS E</b>	Rio de Janeiro, Brazil
1/06 – 1/06	<b>APLICADAS (IMPA)</b>	
	<i>Post Doc</i>	
8/04-8/04	<b>INTERNATIONAL MONETARY FUND</b>	Washington D.C, U.S.A
	<i>Visiting Scholar</i>	
1/00-8/02	<b>UNIVERSITY OF CALIFORNIA, LOS ANGELES</b>	Los Angeles, U.S.A
	<i>Visiting Professor</i>	

**BOARDS, COMMITTEES, GOVERNMENT, MULTILATERALS AND PRIVATE FIRMS**

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6/18-11/22	<b>GRUPO BANCOLOMBIA</b> <i>Member Investment Committee</i> <a href="http://www.grupobancolombia.com">www.grupobancolombia.com</a>	Medellin, Colombia
4/19-11/21	<b>XM</b> Board Member <a href="http://www.xm.com.co">www.xm.com.co</a>	Medellin, Colombia
4/19-3/22	<b>CORPORACION COLEGIO COLOMBO BRITANICO</b> Board Member <a href="http://www.colombobritanico.edu.co">www.colombobritanico.edu.co</a>	Cali, Colombia
1/15-12/15	<b>CENTRAL BANK: BANCO DE LA REPÚBLICA</b> <i>Advisor</i> Center of Studies of International and Industrial Economics	Cali, Colombia
4/96-7/05	<b>CENTRAL BANK: BANCO DE LA REPUBLICA</b> <i>Senior Economist</i> Quantitative Macroeconomics, General Equilibrium Theory with Incomplete Markets, Auctions.	Bogotá, Colombia
4/14-10/14	<b>INTERAMERICAN DEVELOPMENT BANK</b> <i>Consultant</i> Economic Models Health Sector	Bogota, Colombia
2/14-2/14	<b>WORLD BANK</b> <i>Consultant</i> Economic Models Health Sector	Bogota, Colombia
6/00-8/00	<b>JP MORGAN</b> <i>Summer Research Associate</i> Emerging Markets Fixed Income Research	New York, U.S.A
8/07-12/07	<b>MUNICIPIO DE CALI</b> <i>Advisor</i> Confis Municipal	Cali, Colombia

**INDUSTRY EXPERIENCE**

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9/08-	<b>QUANTIL   MATEMÁTICAS APLICADAS</b> <a href="http://www.quantil.com.co">www.quantil.com.co</a> Founder, Partner & Co-Director	Bogotá, Colombia
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Industries: Artificial Intelligence across industries, Electricity Sector, Public Health, Telecommunications.

Expertise: Machine learning, general equilibrium. competition policy, auctions, game theory, applied mathematics.

## Applied Machine Learning

- Á. J. R. Villegas, J. S. M. Pabón, M. Dulce Rubio, S. Quintero, J. G. Vargas and H. García, "Spatio Temporal Sparsity in Homicide Prediction Models," in IEEE Access, vol. 10, pp. 14359-14367, 2022, doi: 10.1109/ACCESS.2022.3143858.
- Julián Chitiva Bocanegra, Douglas Newball Ramírez, Paula Rodríguez Díaz, Hamadys Benavides Gutiérrez, Mateo Dulce, and Álvaro Riascos. 2021. Visual Representations to Evaluate the Heterogeneous Effects of Urban Parks Restoration on Crime. In ACM SIGCAS Conference on Computing and Sustainable Societies (COMPASS '21). Association for Computing Machinery, New York, NY, USA, 48–54. DOI: <https://doi.org/10.1145/3460112.3471969>
- Alvaro Riascos, Juan Moreno, Mateo Dulce, Hernan Garcia and Sebastian Quintero. 2021. Dynamic Network Analysis of Spatio-Temporal Crime Incidents. Forthcoming IEEE: BESC 2021 Conference Proceedings.
- Understanding the effect of compliance with quarantines and lockdowns on domestic violence occurrence in Bogota. Rodriguez, P., Gomez, O., Garcia, J., Riascos, A., Moreno, J., Castro, J., Panqueva, J. Forthcoming UNDP LAC COVID-19 Policy Documents Series.
- [A supervised clustering MCMC methodology for large categorical feature spaces.](#) Simón Ramírez, Adolfo J Quiroz, Alvaro J Riascos. First Published June 1, 2021. Statistical Methods in Medical Research.
- Efficient nearest neighbors' methods for support vector machines in high dimensional feature spaces. March 2021. [Optimization Letters](#) 15(Jan). DOI: [10.1007/s11590-020-01616-w](https://doi.org/10.1007/s11590-020-01616-w)
- S. Q. Soto, J. S. M. Pabón, M. D. Rubio, A. J. Riascos and L. G. Nonato, "Graph Restrictions for Signal Processing of Homicides Data," *2021 International Conference on Applied Artificial Intelligence (ICAPAI)*, 2021, pp. 1-6, doi: 10.1109/ICAPAI49758.2021.9462063.
- [Homicide prediction using sequential features from graph signal processing.](#) J. Moreno, S. Quintero, A. Riascos, L. Nonato and C. Sanchez. 2021. 21st Computing Conference, 2021.
- [Self-exciting point processes with image features as covariates for robbery modeling.](#) Dulce, M., Rodriguez, P., Moreno, J., Riascos, A., Camargo, J. *Proceedings of the Computing Conference, 2021.*
- [Zero-Inflated Embeddings to Analyze Homicide Occurrences Patterns.](#) Benavides, H., Gomez O., Dulce M., Rodriguez, P., Riascos, A., and Moreno, J. *2nd International Conference on Computing and Data Science, 2021.*
- Urcuqui, C., Moreno, J., Montenegro, C., Riascos, A., & Dulce, M. (2020, November). [Accuracy and Fairness in a Conditional Generative Adversarial Model of Crime Prediction.](#) In *2020 7th International Conference on Behavioural and Social Computing (BESC)* (pp. 1-6). IEEE.
- [A Manifold Learning Data Enrichment Methodology for Homicide Prediction.](#) Moreno, J., Dulce, M., Riascos, A., Castano, J., and Rodriguez, P. *7th International Conference on Behavioral, Economic and Socio-Cultural Computing (BESC), 2020.*

- [Predicting Length-Of-Stay and its Impact on Annual Health Costs in the Colombian Health Care System](#) (with Natalia Serna). Proceedings of Machine Learning Research. Volume 69: Medical Informatics and Healthcare, 14 August 2017.
- [Machine Learning Based Program to Prevent Hospitalizations and Reduce Costs in the Colombian Statutory Health Care System](#). Alvaro J. Riascos (University of los Andes and Quantil, Bogotá, Colombia) and Natalia Serna (University of Wisconsin-Madison, Madison, USA). Source Title: International Journal of Knowledge Discovery in Bioinformatics (IJKDB) 8(2).

## **Economics**

- Juan Esteban Carranza, Juan David Martin, and Álvaro José Riascos. 2021. Economic Activity during the COVID-19 Pandemic: A Model with “Acquired Immunity”. Federal Reserve Bank of St. Louis Review, forthcoming 2022.
- Camelo, Sergio & Papavasiliou, Anthony & de Castro, Luciano & Riascos, Álvaro & Oren, Shmuel, 2018. “A structural model to evaluate the transition from self-commitment to centralized unit commitment,” Energy Economics, Elsevier, vol. 75(C), pages 560-572
- Álvaro Riascos, Miguel Bernal, Luciano de Castro, Shmuel Oren. 2016. Transition to Centralized Unit Commitment: An Econometric Analysis of Colombia’s Experience. The Energy Journal, Vol. 37, No. 3
- de Castro, Luciano I. & Riascos, Alvaro, 2009. “Characterization of bidding behavior in multi-unit auctions,” Journal of Mathematical Economics, Elsevier, vol. 45(9-10), pages 559-575, September.
- Carvajal Andres & Riascos Alvaro Jose, 2008. “Identification of Individual Demands from Market Data under Uncertainty,” The B.E. Journal of Theoretical Economics, De Gruyter, vol. 8(1), pages 1-30, March.
- Andres Carvajal, John Geanakoplos & Alvaro J. Riascos Villegas, 2008. “On the Existence of Equilibrium with Incomplete Markets and Non-monotonic preferences” Brazilian Review of Econometrics, November, 28-2.
- Cole, Harold L. & Ohanian, Lee E. & Riascos, Alvaro & Schmitz, James Jr, 2005. “Latin America in the rearview mirror,” Journal of Monetary Economics, Elsevier, vol. 52(1), pages 69-107, January.
- Carvajal Andrés & Riascos Alvaro, 2005. “Identification of Preferences from Market Data,” The B.E. Journal of Theoretical Economics, De Gruyter, vol. 5(1), pages 1-17, April.

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## **PERSONAL**

*Nationality:* Colombian

*Place and Date of Birth:* April 25, 1969 in Cali, Colombia

*Personal Website:* [www.alvaroriascos.com](http://www.alvaroriascos.com)