# **John Rios**

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### **RESEARCH INTERESTS**

Data Science, Network Analytics, Predictive Models, Decision Analysis

#### **EDUCATION**

<ul> <li>University of Iowa, Iowa City, IA, USA.</li> <li>Ph.D., in Business Administration, Department of Business Analytics</li> <li>Dissertation: Predicting Stock Price Movements in Supply Chain Networks.</li> <li>Committee: Kang Zhao (chair), Nick Street, Jennifer Blackhurst, Gautam Pant, Suyong Song.</li> </ul>	2021
<ul> <li>Universidad de los Andes, Bogotá, Colombia.</li> <li>M.E., Industrial Engineering.</li> </ul>	2011
<ul> <li>Universidad de los Andes, Bogotá, Colombia.</li> <li>B.E., Industrial Engineering.</li> </ul>	2008
ACADEMIC APPOINTMENTS	
<ul> <li>University of Georgia. Department of Management Information Systems. Athens, GA Full Time Lecturer.</li> <li>Fall 2021 -</li> </ul>	- present
<ul> <li>University of Iowa. Department of Business Analytics. Iowa City, IA</li> <li>Lecturer – Primary Instructor.</li> <li>Graduate Research and Teaching Assistant.</li> </ul>	ing 2020 5 – 2021
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## JOURNAL ARTICLES

- Rios, J., Zhao, K. & Street, W.N., Blackhurst, J., Stock Price Movement Cross-Predictability in Supply Chain Networks. *Under review*.
- Ruiz, JG., Charpak, N., Castillo, M., Bernal, A., Rios, J., Trujillo, T., & Córdoba, MA. (2017). Latin American Clinical Epidemiology Network Series – Paper 4: Economic evaluation of Kangaroo Mother Care: Cost utility analysis of results from a randomized controlled trial conducted in Bogotá. *Journal of Clinical Epidemiology* (86), pp. 91-100.

## **WORKING PAPERS**

- Rios, J., Zhao, K., Street, W.N., Tian, H., & Zheng, X., A Hybrid Deep Learning Model for Dynamic Stock Movement Predictions based on Supply Chain Networks. Target: *IJOC*.
- Wang, J., Rios, J., Song, S., Zhao, K., Impact of the COVID-19 Pandemic on Firm Performance.
- Wang, J., Rios, J., Song, S., Zhao, K., Peer Effect Analysis of Board Membership Network on Supply Chain Partners.

## **TEACHING EXPERIENCE**

- University of Georgia, Department of Management Information Systems
  - Primary Instructor: Fall 2021 Present Courses: Business Intelligence and Analytics; Energy Informatics; Analytical Tools for Decision Making
- University of Iowa, Department of Business Analytics
  - Lecturer Primary Instructor: **Spring 2020** Course: Data Mining. Average student evaluation score: N/A (COVID-related move to online)
  - Lecturer Primary Instructor: **Summer 2019** Course: Operation Management. Average student evaluation score: **5.5**/6

- Graduate Research and Teaching Assistant: Fall 2015 to Present Courses: Data Mining (designed my own discussion sections), Operations Management, Knowledge Discovery, and Information Systems.
- Universidad de los Andes, Bogotá D.C., Colombia
  - Lecturer Primary Instructor: Spring 2010 to Summer 2014
  - \* Probability and Statistics (undergraduate course): every semester from **Jan 2010 to May 2014**. Average student evaluation score: **3.68/4**.
  - \* Discrete Event Simulation (undergraduate course): every semester from Aug 2010 to Aug 2014. Average student evaluation score: 3.67/4.
  - \* Probability and Statistics (graduate course): **one master** course and **three certification** courses offered by the Department of Industrial Engineering. Designed my own syllabus.
  - \* Decision Making (graduate course complementary lecturer): every semester from Jan 2010 to May 2014.
  - \* Statistical Analysis and Decision Making Executive MBA Complementary Lecturer
    - 2011 (Outstanding student evaluation **3.83/4**)
    - 2012 (Best historical EMBA student evaluation 3.88/4)
    - 2013 (Best historical EMBA student evaluation 3.92/4)
  - \* Decision Analysis Applied to Marketing Guest Lecturer (graduate).
  - \* Thesis Advisor: more than ten candidates for the Bachelor of Industrial Engineering degree.
  - Graduate Teaching Assistant: Fall 2008 to Fall 2009
  - \* Probability and Statistics (undergraduate course): every semester from Aug. 2008 to Dec. 2009.
  - \* Probability and Statistics: Industrial Engineering Master designed for Ecopetrol S.A.
  - \* Statistical Analysis and Decision Making Part-time MBA.
  - \* Statistics Masters in Marketing.

#### HONORS AND AWARDS

Awards

- Outstanding Teaching Assistant Award, University of Iowa. Course: Data Mining (Fall 2018).

#### Fellowships

- Ada Louise Ballard and Seashore Dissertation Fellowship, University of Iowa, (Spring 2021).
- Departmental Research Fellowship, Department of Business Analytics (Fall 2020, Spring 2017).
- Post-Comprehensive Research Award, University of Iowa Graduate College, (Fall 2018).
- Graduate College Summer Research Fellowship (Summer 2018).
- Summer Departmental Research Fellowship, Department of Business Analytics (2020, 2017, 2016).
- Industrial Engineering Department's Fellowship for Master Studies (Fall 2008 Fall 2009).

## **INDUSTRY PROJECTS**

Eighteen projects and academic trainings as part of the Decision Analysis Team led by Professor Mario Castillo.

- Impact Evaluation of the Project of Modernization of the Oil Refinery of Barrancabermeja on liquid fuels supply chain in Colombia (funded by Ecopetrol S.A. - 2014).
- Academic training in Decision Making Based on Statistical Analysis for the Managerial Team of UNE EPM Telecomunicaciones (funded by UNE EPM Telecomunicaciones - 2014).
- Academic training in Decision Analysis under Risk and Uncertainty for the drilling team of Emerald Energy Plc (Funded by Emerald Energy Plc - 2013).
- Academic training in Decision Analysis under Risk and Uncertainty for the reliability team of Oil Refinery of Barrancabermeja for Ecopetrol (funded by Ecopetrol S.A. - 2013).
- Design and Building of a Decision Tree for the Evaluation of Costs and Risks Associated to Alternatives of Casing Configuration for Well of the Future Project for Equión (funded by Equión Energía Limited - 2013).
- Analysis and Evaluation of Location Alternatives for Construction of an Upgrader Plant of Heavy Crude -

Phase 2. (Confidential - 2013).

- Consulting and Support in Statistical Data Analysis for Cost Estimation Associate to Open and New Insurance Claims of Positiva ARP (funded by Positiva ARP - 2013).
- Analysis and Evaluation of Location Alternatives for Construction of an Upgrader Plant of Heavy Crude Oil
   Phase 1. (Confidential 2013).
- Skills Development for the Strengthening of the Culture and the Implementation of Best Practices in Risk Management of Equión Energy Limited - Phase 1 (funded by Equión Energía Limited - 2013).
- Academic training in Decision Analysis and Risk Assessment in Well GPS (Getting Planning Successful) for Equión Energía Limited (funded by Equión Energía Limited - 2013).
- Analysis and Evaluation of Alternatives for Risk Management in "Gasoducto de Occidente" for TransGas (funded by TransGas - 2013).
- Design and Implementation of a Probabilistic Methodology for the Time and Cost Estimation of Drilling Works of a set of Oil Wells in an Oilfield (funded by Equión Energía Limited - 2012).
- Preliminary Evaluation of the Economic Feasibility of a Shipping Company in Colombia and its Operation Routes (funded by the Colombian Navy - 2012).
- Use of Multiattribute Utility Function for a Cost-Utility Analysis of Kangaroo Mother Versus "Traditional" Care for Premature Infants in Bogotá, Colombia (funded by Universidad Javeriana and Colciencias- 2012).
- Academic training in Decision Analysis under Risk and Uncertainty and lecturing workshops on a methodology for structuring and evaluating Business Opportunities (funded by Ecopetrol S.A. - 2011).
- Design and Implementation of a Probabilistic Methodology for the Time and Cost Estimation of Drilling Works in an Oil Well. Drilling and Completion Estimator – D.C.E. A tool designed for Equión and programmed in VBA and Crystal Ball (funded by BP Colombia- currently it is Equión Energía Limited -2011).
- Decision Analysis Consulting for the Colombian Petroleum Company, Ecopetrol S.A, in Probabilistic Risk Assessment of the Economic Evaluation of Business Case. Modernization Project to the Oil Refinery of Barrancabermeja (funded by Ecopetrol S.A.- 2010).
- Analysis and Evaluation of Alternatives for Fluvial Surveillance (funded by the Colombian Navy 2010).

#### **PROFESSIONAL SERVICE**

**Reviewer** (in alphabetical order):

- Electronic Commerce Research and Applications
- Information Technology and Management

#### INFORMS Annual Meeting. Session Chair of:

- Network Analytics, Indianapolis, IN, 2022
- Analytics in Supply Chain Networks. Hybrid, Anaheim, CA 2021
- Data and Network Science. Virtual, 2020
- Network Analytics and Predictive Models. Seattle, WA, 2019.

#### Iowa INFORMS Student Chapter

- President 2018
- Vice President 2017
- Secretary 2016

#### Referee (in alphabetical order):

- ACM International Conference on Information & Knowledge Management (CIKM)
- ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)
- Conference on Information Systems and Technology (CIST)

- China Summer Workshop on Information Management (CSWIM)
- IEEE International Conference on Healthcare Informatics (ICHI)
- INFORMS Workshop on Data Science
- International Conference on Information Systems (ICIS)
- International Conference on Machine Learning (ICML)
- Workshop on Information Technologies and Systems (WITS)

# **CONFERENCES PAPERS AND PRESENTATIONS**

- Rios, J Sun M., Zhao K., Song S., Seyedalikhani E. How Has Covid-19 Shaken up the Global Supply Chain Networks?—The Role of Geography and Firm Performance.
  - INFORMS Annual Meeting, Indianapolis, IN, 2021
- Rios, J., Zhao, K., Street, W.N., Tian, H., & Zheng, X., A Hybrid Deep Learning Model for Dynamic Stock Movement Predictions based on Supply Chain Networks.
  - INFORMS Annual Meeting, Hybrid, Anaheim, CA, 2021
  - Proceedings of the 30th Annual Workshop on Information Technologies and Systems (WITS), Virtual, 2020.
  - INFORMS Annual Meeting, Virtual, 2020.
- **Rios, J.**, Zhao, K., Street, W.N., & Blackhurst, J., Predicting Stock Price Movements via Multi-relational Inter-firm Networks.
  - INFORMS Annual Meeting, Seattle, WA, 2019.
  - 13th China Summer Workshop on Information Management (CSWIM), Shenzhen, China, 2019.
  - Doctoral Consortium International Conference on Design Science Research in Information Systems and Technology (DESRIST) Worcester, MA, 2019.
  - MIS and Analytics Big 10 Research Conference, Krannert School of Business, Purdue University, West Lafayette, IN, 2019.
  - Winter Conference on Business Analytics (WCBA), Snowbird, UT, 2019.
  - INFORMS Workshop on Data Science, Phoenix, AZ, 2018.
- **Rios, J.**, Zhao, K., Street, W.N., & Blackhurst, J., A Network Analysis Approach to Predict Supply Chain Performance.
  - INFORMS Annual Meeting, Houston, TX, 2017.
  - Winter Conference on Business Analytics, Snowbird, Utah, 2017.
- Wang, X., Zhao, K., Pant, G. & Rodriguez, J.R., The Diffusion of User Roles via Social Networks in Online Health Communities.
  - Proceedings of the 25th Annual Workshop on Information Technologies and Systems (WITS), Dallas, TX, 2015.
- Castillo, M., Rios, J., Bernal, A., Bejarano, C., & Martínez, O., Analysis and Evaluation of Alternative Sites for a New Heavy Crude Upgrading Plant in Colombia.
  - Proceedings of the International Symposium on the Analytic Hierarchy Process (ISAHP 2014). Washington, DC, 2014.
- Castillo, M., Rios, J., Bernal, A., Ruiz, J.G., Charpak, N., Trujillo, T., & Córdoba, M.A. Use of Multi-attribute Utility Function for a Cost-Utility Analysis of Kangaroo Mother Versus "Traditional" Care for Premature Infants in Bogotá, Colombia.
  - 22nd International Conference on Multiple Criteria Decision Making. Malaga, Spain, 2013.
- Castillo, M., Gómez, L., Barrios, M., Rios, J., & Novoa, L.J., Analysis and Evaluation of Alternatives for Fluvial Surveillance. "A Colombian Navy Case."
  - Proceedings of the International Symposium on the Analytic Hierarchy Process (ISAHP 2011). Sorrento, Italy, 2011.

- Rios, J., & Castillo M., Discrete Event Simulation to Determine When Performing a Breast Cancer Biopsy Is Cost-Effective.
  - 32nd Annual Meeting of the Society for Medical Decision Making, Toronto, Canada, 2010.

### INTERESTS AND ADDITIONAL INFORMATION

- Volunteer: Afterschool Tutoring in DC Public School (826DC program Washington D.C. USA).
- Nationality: Colombian.
- Sports: Soccer, 5K run.