

Jorge A. Huertas

PhD Candidate in Operations Research – Georgia Institute of Technology

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🔗 Google Scholar

Research Interests

- Research interests in operations research, combining optimization, simulation, and machine learning.
- Applications to semiconductor manufacturing, including scheduling and production planning in wafer fabrication facilities and their supply chain.

Methodology and Techniques

Combination of data analysis, mathematical optimization (network flows, mixed-integer optimization, constraint programming), decompositions (column generation, benders), computational simulation (discrete events and traffic), and machine learning.

Broader Applications

Semiconductor manufacturing, logistics, transportation and mobility, evacuation planning, and telecommunications.

Education

Georgia Institute of Technology

Atlanta, GA, USA

Ph.D. in Operations Research, Expected graduation: May 7, 2026

Aug 2020 – Present

- Advisor: Pascal Van Hentenryck, PhD
- Thesis: Scheduling in semiconductor manufacturing

M.Sc. in Operations Research, Graduated Dec 2024

Aug 2020 – Jun 2024

Arizona State University

Tempe, AZ, USA

Six Sigma - Black Belt, Graduated Dec 2015

Jan 2015 – Dec 2015

Universidad de los Andes

Bogotá, Colombia

M.Sc. in Industrial Engineering, Graduated Oct 2016

Jan 2015 – Jun 2016

B.Sc. in Industrial Engineering, Graduated Mar 2015

Jan 2011 – Dec 2014

B.Sc. in Systems and Computing Engineering, Graduated Mar 2015

Jan 2010 – Dec 2014

Publications

Peer Reviewed Journal Articles

Semiconductor Manufacturing

1. Constraint programming models for serial batch scheduling with minimum batch size. **J. A. Huertas**, P. Van Hentenryck. *Operations Research Perspectives* 15. Sept. **2025**. 100352. DOI: 10.1016/j.orp.2025.100352.
2. Parallel batch scheduling with incompatible job families via constraint programming. **J. A. Huertas**, P. Van Hentenryck. *IEEE Transactions on Semiconductor Manufacturing*. Aug. **2025**. 1–17. DOI: 10.1109/TSM.2025.3601510.

Transportation and Mobility

3. Level of traffic stress-based classification: A clustering approach for Bogotá, Colombia. **J. A. Huertas**, A. Palacio^{*}, M. Botero^{*}, G. A. Carvajal, T. Van Laake, D. Higuera-Mendieta, S. A. Cabrales, L. A. Guzman, O. L. Sarmiento, A. L. Medaglia. *Transportation Research Part D: Transport and Environment* 85. **2020**. 102420. DOI: 10.1016/j.trd.2020.102420.

^{*}Undergraduate advised student; ⁺Graduate co-advised student

Evacuation Planning

4. Pedestrian evacuation planning: Unveiling evacuation routes via column generation. N. Cabrera*, **J. A. Huertas**, A. L. Medaglia. *EURO Journal on Transportation and Logistics* 11. July 2022. 100089. DOI: 10.1016/j.ejtl.2022.100089.
5. Time estimation and hotspot detection in the evacuation of a complex of buildings: A mesoscopic approach and case study. J. A. Zambrano+, **J. A. Huertas**, E. Segura-Durán, A. L. Medaglia. *IEEE Transactions on Engineering Management* 67 (3). Jan. 2020. 641–658. DOI: 10.1109/TEM.2019.2960354.
6. Evacuation dynamics: a modeling and visualization framework. **J. A. Huertas**, D. Duque, E. Segura-Durán, R. Akhavan-Tabatabaei, A. L. Medaglia. *OR Spectrum* 42 (3). June 2019. 661–691. DOI: 10.1007/s00291-019-00548-x.

Telecommunications Networks

7. Addressing cooperation between mobile operators in telecommunication networks via optimization: A lexicographic approach and case study in Colombia. F. J. MacAllister*, L. Maya*, **J. A. Huertas**, C. Lozano-Garzón, Y. Donoso. *International Journal of Computers Communications & Control* 15 (6). Nov. 2020. DOI: 10.15837/ijccc.2020.6.3975.
8. Multi-objective tabu search to balance multihoming loads in heterogeneous wireless networks. **J. A. Huertas**, Y. Donoso. *International Journal of Computers Communications & Control* 13 (6). Nov. 2018. 956–971. DOI: 10.15837/ijccc.2018.6.3360.

Health Care

9. The role of engineering in the COVID-19 pandemic (in Spanish). P. Betancourt Ruiz, M. Guevara Suárez, M. Hidalgo, S. Restrepo, E. Potdevin*, **J. A. Huertas**, A. L. Medaglia, J. M. Pedraza, M. L. Cepeda, P. Arbeláez. *Revista de Ingeniería* 1 (50). June 2020. 8–13. DOI: 10.16924/revinge.50.1.

Peer Reviewed Articles in Conference Proceedings

Evacuation Planning

10. Large-scale zone-based evacuation planning: Generating convergent and non-preemptive evacuation plans via column generation. **J. A. Huertas**, P. Van Hentenryck. *Proceedings of the 55th Hawaii International Conference on System Sciences*. Jan. 2022. DOI: 10.24251/HICSS.2022.307.

Submitted Articles

Transportation and Mobility

11. MARTA Reach: pilot of an on-demand multimodal transit system in Atlanta. P. Van Hentenryck, C. Riley, A. Trasatti, H. Guan, T. Santanam, **J. A. Huertas**, K. Dalmeijer, K. Watkins, J. Drake, S. Baskin. *Under review in INFORMS Journal on Applied Analytics*. Oct. 2023. DOI: 10.48550/arXiv.2308.02681.
12. An aligned constraint programming model for serial batch scheduling with minimum batch size. **J. A. Huertas**, P. Van Hentenryck. *Under review in IEEE Transactions on Semiconductor Manufacturing*. Nov. 2025. 1–14. DOI: 10.48550/arXiv.2511.16045.

Reports

13. Two-stage analytics framework for warehouse location for Rappi: a case study in Ciudad de Mexico (Mexico). A. M. Quintero-Ossa*, **J. A. Huertas**, C. Lozano-Garzón, A. Correa-Bahnsen, Y. Donoso, A. L. Medaglia. *Technical report, COPA-2021-02*. Feb. 2021. Universidad de los Andes, Bogotá, Colombia. URL: <http://hdl.handle.net/1992/50594>.
14. Pedestrian flows under emergencies at Universidad de los Andes. **J. A. Huertas**, D. Duque, E. Segura-Durán, R. Akhavan-Tabatabaei, A. L. Medaglia. June 2016. Masters Thesis. URL: <https://hdl.handle.net/1992/13677>.
15. Solving the time-ahead pricing of energy supply problem with nonlinear utility function for consumers via a bilevel optimization approach. **J. A. Huertas**, D. M. Eslava, A. F. Pardo, J. E. González. *Technical report, COPA-2014-12*. Jan. 2015. Universidad de los Andes, Bogotá, Colombia. URL: <http://hdl.handle.net/1992/31241>.

Working Papers

Semiconductor Manufacturing

1. Parallel batch scheduling with family-machine dedications and critical queue times. **J. A. Huertas**, J. Lee, P. Van Hentenryck. **2025**. To be submitted to *Constraint Programming*.
2. Improving scheduling in semiconductor manufacturing using constraint programming and discrete-event simulation. **J. A. Huertas**, P. Van Hentenryck. **2025**. To be submitted to *Manufacturing & Service Operations Management*.
3. A circuit-based model for serial batch scheduling with minimum batch sizes. **J. A. Huertas**, A. Deza, P. Van Hentenryck. **2025**. Working paper.

Evacuation Planning

4. Including evacuation deadlines in large-scale zone-based evacuation plans with convergent paths and non-preemptive schedules. **J. A. Huertas**, P. Van Hentenryck. **2025**. Working paper.
5. A logic-based Benders decomposition for large-scale zone-based evacuation planning. **J. A. Huertas**, P. Van Hentenryck. **2025**. Working paper.

Honors and Awards

Georgia Institute of Technology

Atlanta, GA, USA

AI4OPT Fellowship, NSF - AI Institute for Advances in Optimization (AI4OPT)

Aug 2025

- Given for excellence in research and service to the institute.

Best Student Poster, AI4OPT - Tech Fest

Nov 2024

- Poster: Parallel batch scheduling with incompatible job families via constraint programming.

Seth Bonder Fellowship, H. Milton Stewart School of Industrial and Systems Engineering

Jul 2021, Jul 2022

John B. Day Fellowship, H. Milton Stewart School of Industrial and Systems Engineering

Aug 2020 – Jul 2022

XV IISE Latin American Congress

San José, Costa Rica

Advisor of the best Latin American undergraduate thesis

Mar 2018

- Thesis: A column generation approach for evacuation planning.
- Authors: Nicolás Cabrera and **Jorge A. Huertas**.
- Published on: EURO Journal on Transportation and Logistics, Jul 2022.

Universidad de los Andes

Bogotá, Colombia

Academic Excellence Scholarship, Industrial Engineering Department

Jan 2015 – Jun 2016

- Full tuition covered.

7th AIMMS–MOPTA Optimization Modeling Competition

Bethlehem, PA, USA

Winner, Coppta team (**Jorge A Huertas**, Felipe A Pardo, Daniel M Eslava)

Aug 2014

- Proposed a cut-based heuristic to solve the time-ahead pricing of energy supply bilevel optimization problem for the Borough of Madison, NJ, USA.
- Competed against graduate teams from 22 international top universities.
 - Finalists: Universidad de los Andes, École Polytechnique de Montréal, Iowa State University.
- Technical report: COPA-2014-12, Universidad de los Andes.

Research Experience

Google

Sunnyvale, CA, USA

Student Researcher, Planning Sciences Group - Global Networking – Google Cloud

May 2025 – Aug 2025

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- Reduced by 30% the iterations between optimization and traffic engineering models for global network planning by developing and deploying a new optimization module in the main planning system.

Georgia Institute of Technology

Graduate Research Assistant

Atlanta, GA, USA

Aug 2020 – Present

- At the NSF - AI Institute for Advances in Optimization (AI4OPT):
 - Research combining optimization and machine learning to improve the planning processes of the supply chain for semiconductor manufacturing.
 - Improved by 20% semiconductor manufacturing schedules with novel constraint programming models that are up to 6x faster than existing methods.
- At the Socially-Aware Mobility (SAM) Lab:
 - Enhanced by 50% the riders' average trip duration (request-to-destination) in four areas of Atlanta with limited transit access through the development and deployment of MARTA Reach: the pilot of an on-demand multi-modal transit system.
- At the H. Milton Stewart School of Industrial and Systems Engineering:
 - Research on large-scale evacuation planning using mathematical decompositions (e.g., column generation, Benders decomposition, etc.) and traffic simulators.
 - Increased by 78% the accuracy of large-scale evacuation plans relative to traffic simulations by integrating operationally realistic constraints into optimization models that create them, using mathematical decompositions.

Universidad de los Andes

Bogotá, Colombia

Researcher, Center for Optimization and Applied Probability (COPA)

Aug 2015 – Dec 2020

- Optimized Covid-19 testing procedures through a simulation of the Gen-Core laboratory at Universidad de los Andes.
- Developed and implemented a machine learning-based methodology (supervised + unsupervised learning) to classify 167k road segments in Bogotá with their Level of Traffic Stress, revealing a strong correlation between high-stress roads and cyclist collisions, which later served to guide policy-making city-wide.
- Enhanced the planning process of Bogota's integrated multi-modal transit system TransMilenio with a novel data-driven methodology to estimate origin-destination matrices of trip demands, useful for route design and scheduling.
- Strengthened by 15% the evacuation efficiency in Bogotá's historic center and the preparedness of a 23k-occupant campus by detecting congestion hotspots with optimization and simulation models that guided infrastructure interventions.
- Increased by 20% the vertical circulation efficiency in a campus building with 10k+ daily entries by developing a simulation model that guided elevator reconfigurations and stair-use policies.

Teaching Experience

Georgia Institute of Technology

Atlanta, GA, USA

Graduate Teaching Assistant, H. Milton Stewart School of Industrial and Systems Engineering

Aug 2020 – Present

- Undergraduate course:
 - ISYE 4134 - Constraint Programming: Introductory course focused on the modeling paradigm using OPL and CPLEX CP Optimizer (38 students).
- High School Camps:
 - Seth Bonder Camp on Computation and Data Science: three summer camps per year using Snap! and python (250 students).

Universidad de los Andes

Bogotá, Colombia

Instructor, Industrial Engineering Department

Aug 2016 – May 2021

- Taught master lectures to 150+ students per semester:

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- Undergraduate courses:
 - IIND 2109 - Decision Support Systems: Introductory programming course with data visualization using MS-Excel, Visual Basic, and SQL (520 students).
 - IIND 2103 - Optimization Principles: Mid-level course on linear and integer programming focused on modeling techniques using MP-Xpress and MS-Excel (588 students).
 - IIND 3113 - Discrete-Event Simulation: Final course on computational simulation focused on modeling techniques and scenario comparison using MS-Excel, Visual Basic, and Simio (538 students).
- Invited modules at graduate-level courses:
 - Master in Industrial Engineering:
 - IIND 4115 - Network Flows: Invited module on shortest path algorithms and applications of minimum cost flow models.
 - IIND 4108 - Applications in Operations Research: Invited module on large-scale network optimization under uncertainty.
 - Master in Analytics:
 - MIIA 4102 - Process Improvement Modeling: Invited modules on linear and integer optimization with applications in logistics.
 - Master in Petroleum Engineering:
 - MPET 4311 - Systems Optimization: Invited modules on simulation and optimization with applications in petroleum engineering.
- Youtube channel (Spanish) with 100k+ views focused on optimization and simulation: www.youtube.com/@jorge_huertas.

Teaching Assistant

Aug 2013 – Jun 2016

- Undergraduate courses: IIND 2103 - Optimization Principles (182 students).
- Graduate courses: IIND 4115 - Network Flows.

Industry Experience

Intel Corporation

Atlanta, GA, USA

Operations Research Engineering Intern, Supply Chain Management and Decisions Sciences May 2022 – May 2024

- Cut by 45% the runtime of the master production scheduler with a tuning tool for optimization solver parameters.
- Streamlined troubleshooting time for issues in the master production scheduler by automating conflict analyses.
- Accelerated by 40% the production planning optimization model through a Column-Generation decomposition.
- Developed a machine learning-based discrete-event simulation to improve the cycle time prediction in wafer fabs.

Bogotá's Planning Secretariat

Bogotá, Colombia

Analytics Consultant, Urban Roads, Transit, and Public Services Division

Mar 2019 – Sep 2019

- Modernized Bogotá's Master Territory Plan by replacing outdated road classification guidelines with a data-driven methodology (machine learning + GIS) that classified 100k road segments using 2M data points.

The World Bank Group

Bogotá, Colombia

Analytics Short-Term Consultant, Transport and ICT

Feb 2018 – Jul 2018

- Enhanced the urban cycling strategy of Bogotá's Mobility Secretariat and guided infrastructure and safety policy with multi-source data analyses (sensors, GIS, APIs) that covered 475 km of biking network and 172k peak-hour cyclists.

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Presentations

Invited Talks and Seminars

1. Evacuation Planning in Bogotá. **J. A. Huertas**. *Socially-Aware Mobility (SAM) Lab, Georgia Institute of Technology*. Mar. 2020. Atlanta, GA, USA. Invited talk.
2. Modeling evacuation dynamics through optimization-based simulation: the macroscopic, mesoscopic, and planning stages. **J. A. Huertas**. *Group for Applied Mathematical Modeling and Analysis (GAMMA)*. Feb. 2020. State University of New York at Buffalo, NY, USA. Invited seminar.
3. Data-driven Level of Traffic Stress: The Case of Bogotá. **J. A. Huertas**, A. Palacio*, M. Botero*, G. A. Carvajal, T. Van Laake, D. Higuera-Mendieta, S. A. Cabrales, L. A. Guzman, O. L. Sarmiento, A. L. Medaglia. *XIII Colombian Congress of Transit and Transportation*. July 2019. Cartagena, Colombia. Invited talk.
4. Multi-objective tabu search to balance multihoming loads in heterogeneous wireless networks. **J. A. Huertas**, Y. Donoso. *Metaheuristics International Conference (MIC)*. July 2019. Cartagena, Colombia. Invited talk.
5. Mesoscopic model to evaluate evacuation dynamics in a university campus. **J. A. Huertas**, J. A. Zambrano⁺, A. L. Medaglia. *XII Colombian Congress of Transit and Transportation*. July 2017. Bogotá, Colombia. Invited talk.
6. A mesoscopic model to evaluate the evacuation dynamics in a university campus. **J. A. Huertas**, J. A. Zambrano⁺, A. L. Medaglia. *INFORMS Annual Meeting*. Oct. 2017. Houston, TX, USA. Invited talk.

Conference Presentations

7. Parallel batch scheduling with incompatible job families via constraint programming. **J. A. Huertas**, P. Van Hentenryck. *IIE Annual Meeting*. June 2025. Atlanta, GA, USA. Conference talk.
8. A column-generation approach for wafer fab scheduling. **J. A. Huertas**, A. Nemani, Z. Zhao, P. Van Hentenryck. *INFORMS Annual Meeting*. Oct. 2023. Phoenix, AZ, USA. Conference talk.
9. Large-scale zone-based evacuation planning: Generating convergent and non-preemptive evacuation plans via column generation. **J. A. Huertas**, P. Van Hentenryck. *Hawaii International Conference on Systems Sciences*. Oct. 2022. Honolulu, HI, USA. Conference talk.
10. Data-driven origin-destination matrix estimation in large-scale integrated public transport systems. A. Palacio, M. Botero, **J. A. Huertas**, C. Osorio, A. L. Medaglia, S. Cabrales. *INFORMS Annual Meeting*. Oct. 2019. Seattle, WA, USA. Conference talk.
11. Analytics framework to improve building flow dynamics. **J. A. Huertas**, V. Puyo*, L. D. Grosso, D. Cifuentes, D. Monroy, M. Suárez, A. L. Medaglia. *INFORMS Annual Meeting*. Oct. 2019. Seattle, WA, USA. Conference talk.
12. Modeling evacuation dynamics. **J. A. Huertas**, J. A. Zambrano⁺, N. Cabrera*, D. Duque, E. Segura-Durán, R. Akhavan-Tabatabaei, A. L. Medaglia. *EURO Annual Meeting*. July 2018. Valencia, Spain. Conference talk.
13. Supporting evacuation decisions via network optimization. **J. A. Huertas**, D. Duque, E. Segura-Durán, R. Akhavan-Tabatabaei, A. L. Medaglia. *INFORMS Annual Meeting*. Oct. 2016. Nashville, TN, USA. Conference talk.

Service Activities

Journal and Conference Refereeing

- Socio-Economic Planning Sciences (Q1 Journal).
- Conference on Integer Programming and Combinatorial Optimization (IPCO).
- European Conference on Information Systems (ECIS).
- Hawaii International Conference on System Sciences (HICSS).
- Institute of Industrial and Systems Engineering (IIE).

Service to the Profession

Institute for Operations Research and Management Sciences (INFORMS)

Session Chair , Job Market Showcase on Topics in Scheduling, INFORMS Annual Meeting	Oct 2025
Session Chair , Semiconductor Industry and Batch Production Session, INFORMS Annual Meeting	Oct 2023
Session Chair , Disaster and Disruption Management Session, INFORMS Annual Meeting	Oct 2021
Session Chair , Simulation I Session, INFORMS Annual Meeting	Oct 2019

Service to the University

AI Institute for Advances in Optimization (AI4OPT)

Atlanta, GA, USA

President – Student Leadership Council

Nov 2022 – Present

- Represent students across Georgia Tech, UC Berkeley, University of Southern California, Texas Tech, and Clark Atlanta.
- Organize and lead events to bring all students together and foster connections.
- Mentor junior students.

Universidad de los Andes

Bogotá, Colombia

Coordinator, Center for Optimization and Applied Probability (COPA)

Jan 2017 – Jul 2020

- Coordinate the weekly activities of the research group.
- Lead the accreditation process of the research group, resulting in the highest ranking possible for a research group in Colombia.

Advisory Activities

Graduate Supervision

Optimization

1. A mesoscopic model to evaluate the evacuation dynamics in a University Campus. J. A. Zambrano⁺, **J. A. Huertas**, A. L. Medaglia. June **2017**. Masters Thesis.

Analytics

1. Analytics as solution for crime. C. N. Hernández Saboga⁺, C. Correa Valencia⁺, C. A. Barajas Bustos, **J. A. Huertas**, C. A. Franco. Nov. **2019**. Masters Thesis. In Spanish.
2. Segmentation and prediction of churn probabilities at CredibanCo S.A.. R. Blanco Torres⁺, N. Lozada Herazo⁺, **J. A. Huertas**, F. Montes. Nov. **2018**. Masters Thesis. In Spanish.
3. Decision-support tool for structuring and implementing projects at Cifras y Conceptos. R. A. Medina Aponte⁺, A. C. Parra López⁺, **J. A. Huertas**, A. L. Medaglia. Nov. **2018**. Masters Thesis. In Spanish.
4. Analytics on hospital bed utilization at Clínica del Country. S. Medina Dupont⁺, I. P. Puentes Pastran⁺, R. F. Valdez Laguado, **J. A. Huertas**, I. Mura. Nov. **2017**. Masters Thesis. In Spanish.

Undergraduate Supervision

Optimization

5. A lexicographic approach to address cooperation between mobile operators in telecommunication networks: a case study in Colombia. F. J. MacAllister^{*}, L. Maya^{*}, C. Lozano-Garzón, **J. A. Huertas**, Y. Donoso. May **2020**. Undergraduate Thesis.
6. Two-stage analytics framework for warehouse location for Rappi: a case study in Mexico City. A. M. Quintero Ossa^{*}, A. L. Medaglia, **J. A. Huertas**. May **2020**. Undergraduate Thesis.
7. Time-ahead pricing of energy supply. S. Rodríguez González^{*}, **J. A. Huertas**. Nov. **2018**. Undergraduate Thesis.
8. Column generation to plan the evacuation of Universidad de los Andes' campus. N. Cabrera Malik^{*}, **J. A. Huertas**. Nov. **2017**. Undergraduate Thesis. In Spanish. Awarded as best Latin American undergraduate thesis by the IISE.

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Simulation

9. Simulation model of COVID-19 diagnostic tests processing at the Gen-Core Laboratory at Universidad de los Andes. S. Restrepo, M. Guevara, M. Lucía Cepeda, J. M. Pedraza, O. L. Sarimiento, J. M. González, P. Arbeláez, E. Potdevin*, **J. A. Huertas**, A. L. Medaglia. May **2020**. Undergraduate Thesis. In Spanish.
10. Discrete-event simulation model for testing cooperation techniques between mobile service operators. D. Patiño Montoya*, C. Lozano-Garzón, **J. A. Huertas**, Y. Donoso. May **2020**. Undergraduate Thesis. In Spanish.
11. Capacity and vertical circulation study of the Julio Mario Santo Domingo building. D. Otero Cárdenas*, **J. A. Huertas**. May **2020**. Undergraduate Thesis. In Spanish.
12. Evaluation of the capacity of the Julio Mario Santo Domingo building through a study of flows and vertical circulation dynamics. V. Puyo Cardozo*, **J. A. Huertas**. Nov. **2019**. Undergraduate Thesis. In Spanish.
13. Application of the IATA-proposed methodology for allocating check-in counters at El Dorado Airport in Bogotá. F. Villegas Londoño*, **J. A. Huertas**. May **2019**. Undergraduate Thesis. In Spanish.

Machine Learning

14. LTS classification in Bogotá using machine learning. A. Palacio*, M. Botero*, **J. A. Huertas**, S. A. Cabrales, O. L. Sarmiento, A. L. Medaglia. May **2019**. Undergraduate Thesis.
15. Machine learning to predict dropout in the Industrial Engineering program at Universidad de los Andes. J. M. Montero Teng*, **J. A. Huertas**. May **2019**. Undergraduate Thesis. In Spanish.

Decision Support Systems

16. Decision-support system for improvement processes in the Department of Industrial Engineering at Universidad de los Andes. A. D. Laiton Vargas*, **J. A. Huertas**. Nov. **2019**. Undergraduate Thesis. In Spanish.

Six Sigma

17. Increasing the availability for the production of screen labels at DIMATIC S.A. using the six sigma methodology. N. D. Álvarez Morales*, **J. A. Huertas**. Nov. **2018**. Undergraduate Thesis. In Spanish.
18. Reducing the delay in the delivery times of the products in Diseño y Desarrollos Metalmecánicos SAS using six sigma's DMAIC methodology. A. F. Galvis Forero*, **J. A. Huertas**. Nov. **2018**. Undergraduate Thesis.
19. Intexlen S.A.S. improvement through six sigma. J. J. Suárez Carvajal*, **J. A. Huertas**. May **2018**. Undergraduate Thesis. In Spanish.

Business

20. Feasibility analysis of vehicle loans under Banco de Occidente's EDGE methodology. A. Burckhardt Acevedo*, G. Torres Cadena, **J. A. Huertas**. May **2018**. Undergraduate Thesis. In Spanish.
21. Sacha inchi as a driver of development in the village of Lubigará, Department of Santander. D. Cepeda Pulido*, D. Fernando Salas, **J. A. Huertas**. May **2018**. Undergraduate Thesis. In Spanish.
22. Business plan for implementing a new branch of the restaurant Bajo Cero in Montería and Bogotá. S. E. Escaf Haddad*, M. Á. González, **J. A. Huertas**. May **2017**. Undergraduate Thesis. In Spanish.

Skills

- **Programming languages:** Java, Python, Visual Basic, C++, OPL, Mosel, JavaScript, C#.
- **Software and solvers:** Gurobi, CPLEX, Xpress, Google OR Tools, Simio, Arena, AIMMS, ArcGIS, QGIS.
- **Tools and frameworks:** Linux, Git, React Native, Meteor, Slurm.

Languages

Native: Spanish

Fluent: English

Jorge A. Huertas

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Affiliations

INFORMS: Institute for Operations Research and Management Sciences

IISE: Institute of Industrial and Systems Engineering

ASOCIO: Colombian Association of Operations Research

In the Media

Flyers

- Informs student spotlight: Jorge Huertas. INFORMS Student Chapter at Georgia Tech. *LinkedIn*. Sept. **2025**. URL: https://www.linkedin.com/posts/informs-student-chapter-at-georgia-tech_georgiatech-isye-ai4opt-activity-7377358537821335553-Zg9X.

Videos

- AI4OPT: Industrial partners program featuring Jorge Huertas. AI Institute for Advances in Optimization (AI4OPT). *YouTube*. Aug. **2023**. URL: https://youtu.be/0h_D0ue0B1M.

News

- Where are the areas of highest stress in Bogotá for cyclists? A. Puentes. *El Tiempo*. July **2020**. Originally in Spanish. URL: <https://www.eltiempo.com/bogota/bicicleta-en-bogota-donde-estan-las-zonas-de-mayor-estres-para-los-ciclistas-523862>.

Teaching Evaluations

Summary of Teaching Evaluations (Universidad de los Andes, 2016–2020)

Semester	Role	Course	Enrolled	Responses	Rating	College Avg.
2020 Fall	Instructor	IIND 2109 - Decision Support Systems	35	32	4.7/5	4.4
		IIND 3113 - Discrete-Event Simulation	43	38	4.5/5	
2020 Spring	Instructor	IIND 2103 - Optimization Principles	45	39	4.7/5	4.4
		IIND 2109 - Decision Support Systems	80	72	4.6/5	
2019 Fall	Instructor	IIND 2103 - Optimization Principles	38	37	4.8/5	4.4
		IIND 2109 - Decision Support Systems	66	61	4.6/5	
2019 Spring	Instructor	IIND 2103 - Optimization Principles	53	50	4.5/5	4.3
		IIND 2109 - Decision Support Systems	47	45	4.5/5	
		IIND 3113 - Discrete-Event Simulation	69	67	4.4/5	
2018 Fall	Instructor	IIND 2103 - Optimization Principles	59	55	4.6/5	4.4
		IIND 2109 - Decision Support Systems	64	61	4.4/5	
2018 Spring	Instructor	IIND 2103 - Optimization Principles	53	53	4.5/5	4.3
		IIND 2109 - Decision Support Systems	40	38	4.3/5	
		IIND 3113 - Discrete-Event Simulation	73	68	4.3/5	
2017 Fall	Instructor	IIND 2103 - Optimization Principles	55	50	4.3/5	4.3
		IIND 2109 - Decision Support Systems	44	40	4.1/5	
		IIND 3113 - Discrete-Event Simulation	58	53	4.3/5	
↓ Old evaluation system (scale 0–4); no college-wide comparison available.					↓	
2017 Spring	Instructor	IIND 2103 - Optimization Principles	115	114	3.7/4	NA
		IIND 2109 - Decision Support Systems	53	53	3.7/4	
		IIND 3113 - Discrete-Event Simulation	30	29	3.7/4	
2016 Fall	Instructor	IIND 2103 - Optimization Principles	55	54	3.8/4	NA
		IIND 2109 - Decision Support Systems	87	87	3.7/4	
2016 Spring	TA	IIND 2103 - Optimization Principles	63	62	3.9/4	NA

Hobbies and More

Basketball, snowboarding, surfing, and electronic music mixing and production.