

RICARDO ACCORSI

Email: ric.accorsi@gmail.com | **LinkedIn:** ricardoaccorsi | **GitHub:** RicardoAccorsi

Languages: Native Portuguese and Fluent English (*TOEFL iBT*: 115/120).

Programming Languages: Python, R, Matlab.

EDUCATION

Georgia Institute of Technology (Georgia Tech)

Ph.D. in Operations Research

08/2026 – Exp. 06/2031

Atlanta, GA, United States

University of Brasilia (UnB)

B.S. in Industrial Engineering – 4.90/5.00 (#1 GPA in the history of the program)

03/2020 – 12/2025

Brasilia, Brazil

SELECTED PUBLICATIONS AND RESEARCH PAPERS

Accorsi, R., Saragih, A., & Mo, B. (2026). Methodological Survey of Benders Stochastic Programming Approaches for Supply Chain Network Design Under Uncertainty. *Manuscript in preparation*.

Accorsi, R., Garcia, R. C., Ostrowski, J., Eales, B., Teixeira, T. M., Chaplin, B., & Rubin, P. (2026). Survival Models for Children with Severe Acute Malnutrition: a Nigerian Case Study. *Submitted to Lifetime Data Analysis*.

Accorsi, R., Garcia, R. C., De Souza Vale, J. G., Assuncao, A. N., & Junior, N. B. (2026). Discrete Event Simulation inside a Private Hospital in Brazil. *Under review at BMJ Health & Care Informatics*.

Accorsi, R., Silva, G. H. P., Souza, T. P. G., Oliveira, V. H. R., & Monteiro, S. B. S. (2025). Assessing Resource Management in Higher Education Sustainability Projects: A Bootstrap DEA Case Study. *Sustainability*, 17(19), 8653.

Nagori A., **Accorsi, R.**, Gautam, A., Sai, A. C. M., & Kamaleswaran, R. (2025). Open-Source Agentic Hybrid RAG Framework for Scientific Literature Review. *Preprint*.

CONFERENCE PRESENTATIONS

Survival Models for Children with Severe Acute Malnutrition: a Nigerian Case (2025, October). Presented at the INFORMS Annual Meeting 2025, Atlanta, GA, United States.

Discrete Event Simulation inside a Private Hospital in Brazil (2024, October). Presented by collaborator at the INFORMS Annual Meeting 2024, Seattle, WA, United States.

Quality and Risk Management in Data Mining: A CRISP-DM Perspective (2024, August). Presented at the International Conference on Information Technology and Quantitative Management 2024, Bucharest, Romania.

RESEARCH EXPERIENCE

MIT-UF-NEU 2026 Joint Summer Research Camp, United States.

06/2026 – Ongoing

Supervisors: Prof. Dr. Austin Saragih and Prof. Dr. Baichuan Mo

- Conducting research on stochastic programming approaches for supply chain network design under uncertainty.

Duke University — Kamaleswaran Laboratory, United States.

10/2024 – 03/2026

Supervisors: Prof. Dr. Rishikesan Kamaleswaran and Dr. Aditya Nagori

- Led the development of an open-source agentic hybrid Retrieval-Augmented Generation framework integrating graph-based and vector retrieval for automated literature review and knowledge synthesis. The resulting system achieved a +0.56 gain in Context Precision over the baseline.
- Built a custom temporal dataset from MIMIC-IV capturing patient trajectories and developed a multiclass classifier to predict physician assignments from triage notes; model comparisons across multilayer perceptrons, XGBoost, and fine-tuned open-source LLMs yielded a best weighted F1 score of 0.71.

University of Brasilia — Operations Research Laboratory, Brazil.

03/2024 – 12/2025

Supervisor: Prof. Dr. Reinaldo C. Garcia

- Developed machine learning survival models using data from 8,000+ children for Taimaka, a Nigerian NGO, achieving a c-index of 0.88 and an empirical sliding-window algorithm for robust model retraining intervals (associated with INFORMS Pro Bono Analytics).
- Applied Data Envelopment Analysis and the Malmquist index to assess efficiency and productivity across 2,700+ Brazilian public hospitals with the Brazilian Federal Court of Audit (TCU), identifying regional and institutional patterns to support policy discussions.
- Employed discrete-event simulation to optimize patient flow at Hospital Sirio-Libanes, one of Latin America's top hospitals, achieving <6% simulation error and <50-minute length of stay through a Theory of Constraints-based heuristic, with projected >USD 200k/year in wage savings.

Brazilian National Confederation of Industry (CNI), Brazil.

09/2023 – 01/2024

Supervisors: Prof. Dr. Jefferson Gomes and Prof. Dr. Clóvis Neumann

- Conducted research on planning the reindustrialization of the Brazilian industrial sector, grounding proposed innovation strategies in systematic literature reviews and insights from international case studies.

TEACHING AND SERVICE

University of Brasilia — Teaching Assistant

03/2023 – 12/2025

Supervisor: Prof. Dr. Reinaldo C. Garcia

- Provided student tutoring, graded assignments, and developed supplementary study materials for the courses Systems Simulation (03/2025–12/2025) and Operations Research in Engineering (03/2023–02/2025).

IEEE Computational Intelligence Society Student Chapter — Student Member

06/2023 – 02/2025

Supervisor: Prof. Dr. Daniel Guerreiro

- Led instructional sessions on Machine Learning, teaching core concepts and supervising Kaggle-based training projects, and served as chapter president (04/2024–02/2025).

University of Brasilia — Leadership

03/2023 – 01/2025

- Egalitarian SDG Challenge Project (European Union partnership): oversaw projects on (i) sensor-based data collection for a recycling cooperative and (ii) developing indicators to assess businesses' sustainable impact in collaboration with Aalborg University, University of Saxon, and University of Minho.

Supervisors: Prof. Dr. Simone Monteiro, Prof. Dr. Jens Pedersen, Prof. Dr. Natascha van Hattum, and Prof. Dr. Rui Lima

- Technologies for the Future of Humanity Project: (i) led a small-scale solar-powered irrigation system implementation, (ii) organized STEM and sustainability outreach events for public schools, and (iii) facilitated monthly English-practice discussions on technology for engineering students.

Supervisor: Prof. Dr. Rafael Shayane

ACHIEVEMENTS AND AWARDS

1st Place: Success Stories in Sustainability and Social Responsibility, IEEE Brazil Council

2024

Awarded for the project Technologies for the Future of Humanity as the best initiative promoting sustainability and social responsibility among IEEE student activities in Brazilian universities

2nd Place: Candango Award, Project Management Institute (PMI) at Brasilia

2024

Awarded as part of the European Union's Egalitarian SDG Challenge for outstanding contributions to sustainable development and local community impact

Honorable Mention: Undergraduate Research Congress, University of Brasilia

2024

Recognized for the manuscript Quality and Data Management in Data Mining: A CRISP-DM Perspective

Undergraduate Research Fellow

2024 – 2025

Received two competitive merit-based research scholarships: one from the Brazilian National Council for Scientific and Technological Development (CNPq, 2024) and another from the University of Brasilia (2025).