Igor Lucindo Cardoso

Igor.Cardoso@ttu.edu | igorcardoso | igorlucindo

Professional Summary

- Research focus on optimization, Mixed-Integer Programming (MIP), and graph theory.
- Hands-on experience in mathematical modeling, machine learning, and robotics.
- Published work presented at IEEE conferences.
- Strong foundation in electronic engineering and programming (C/C++, Python, Matlab, Julia).
- Active contributor to professional and research communities.

Education

Texas Tech University (TTU) 2025 – Present
Ph.D. in Industrial Engineering GPA: 4.0/4.0
Research: Optimization, MIP, Graph Theory

Getulio Vargas Foundation (FGV) 2023 – 2024
M.A. Courses in Mathematical Modeling

Military Institute of Engineering (IME) 2020 – 2024
B.S. in Electronic Engineering GPA: 8.25/10

Research Experience

Research Assistant, Texas Tech University (TTU) 2025 – Present

- Conducting research in optimization, MIP, and graph theory, with ongoing work targeted for publication in leading optimization journals.
- Advisor: Dr. Hamidreza Validi.

Research Experience for Undergraduates, Memorial University of Newfoundland (MUN) 2023

- Contributed to machine learning, computer vision, and robotics in the BioInspired Robotics Lab. Developed a prosthetic hand with autonomous grasping. (Publication: Comparing Pre-Trained Object Detection Models for Autonomous Grasp, *IEEE MeMeA 2024*)
- Advisor: Dr. Vinicius P. da Fonseca.

Honors & Awards

- Student Chapter Annual Award (Cum Laude), INFORMS 2025
- 1st place in "The Road to 2050" competition, Shell Eco-marathon Team 2021
- 5th place in Petrobras Challenge, Latin American Robotics Competition, RoboIME 2021
- Gold and Silver Medals, Brazilian Mathematical Olympiad of Public Schools (OBMEP) 2018 – 2019

Professional Affiliations & Activities

INFORMS Student Chapter, Texas Tech University 2025 – Present

- Active member engaging in seminars, discussions, and collaborative research in optimization and operations research.

Journal Club, Texas Tech University 2025 – Present

- Presenter in Journal Club sessions, discussing and analyzing peer-reviewed research in Industrial Engineering.

American Airlines Scheduling Project 2025

- Developed mixed-integer programming models to optimize aircraft scheduling for American Airlines.

Robotics Club – RoboIME 2021 – 2023

- Worked on projects involving machine learning and computer vision.

Shell Eco-marathon Team 2021 – 2023

- Team member developing sustainable engineering solutions.

Skills

Programming	Python, C/C++, Matlab, Julia, JavaScript, HTML, CSS, FPGA
Tools	Gurobi, Cuda, Git, LaTeX, ROS, Arduino, Cloud Firestore
Languages	Portuguese (native), English (fluent), French (intermediate)