DANIEL B. LOPES DA SILVA

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PERSONAL DATA

Assistant Professor
Department of Mechanical and Industrial Engineering
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Florida Polytechnic University
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EDUCATION

Ph.D., Clemson University, Industrial Engineering   2025

M.S., University of Arkansas, Industrial Engineering   2021

M.S., Federal University of Pernambuco (Brazil), Industrial Engineering   2019

B.S., Federal University of Alagoas (Brazil), Industrial Engineering   2017

PROFESSIONAL EXPERIENCE

Florida Polytechnic University - Assistant Professor of Industrial Engineering   (2025 -)
Clemson University - Graduate Assistant   (2021-2025)
University of Arkansas - Research Assistant   (2017-2019)

MEMBERSHIP

Institute for Operations Research and the Management Sciences (INFORMS)   2019 - Present
Institute of Industrial and Systems Engineers (IISE)   2019 - Present

AWARDS & HONORS

Student Development Award (Outstanding Research Paper), IE Dep. Clemson University   2023
P. K. Kuroda and W. R. Thomas Endowed Fellowship, University of Arkansas   2019 - 2021
Brazil Scientific Mobility Program scholarship (Fully Funded)   2014 - 2015
Honorable mention, 1st Brazilian Mathematics Olympics of Public Schools   2005

REFERRED JOURNAL PAPERS

Lopes da Silva, D. B., Sharkey, T. C., Song, Y. A Bilevel Network Interdiction Problem to Minimize the Number of Active Special Arcs in the Maximum Flow. INFORMS Journal on Computing, 2025.

Lopes da Silva, D. B., Sullivan, K. M. An Optimization-Based Monte Carlo Method for Estimating the Two-Terminal Survival Signature of Networks with Two Component Classes. Naval Research Logistics, 72(2):169-186, 2025.

Chakrabarty, N., Sullivan, K. M., **Lopes da Silva, D. B.** Time-based Redeployment of Multi-class Nodes for Reliable Wireless Sensor Network Coverage. Computers & Industrial Engineering, 2024.

Lopes da Silva, D. B. and Silva, G. Supply Chain Management and Performance: Proposition of a Conceptual Model. Exacta EP, 2020.

SUBMITTED AND WORKING PAPERS

Lopes da Silva, D. B., Sharkey, T. C., Song, Y., Maass, K. L. Bi-Objective Bilevel Network Interdiction Models for Sex Trafficking Disruption (Under review, 2025).

Sharkey, T. C., Song, Y., Maass, K. L., **Lopes da Silva, D. B.**, and others. Considerations for Modeling Effective Interventions into Sex Trafficking using Operations Research Method (Under Review, 2025).

Lopes da Silva, D. B., Sharkey, T. C., Song, Y. A Robust Network Interdiction Problem with Applications in Human Trafficking Disruption (2025).

OTHER PUBLICATIONS

Lopes da Silva, D. B., Mao, L. The First Southeast INFORMS Student Chapter Retreat. ORMS Tomorrow, Fall-Winter, Vol. 11, No 2, 2024.

TEACHING

Florida Polytechnic University

EIN 4522 - Systems Modeling and Optimization	Spring 2026
EGN 1008 - Engineering Explorations	Spring 2026
EIN 4313 - Uncertainty Modeling and Analysis	Fall 2025
EGN 1213 - Engineering Computing: MATLAB Applications for Engineers	Fall 2025

Clemson University

IE 3800 - Deterministic Operations Research (GTR)	Fall 2024
IE 6910 - Model Based System Engineering (TA)	Spring 2025
IE 8590 - Capstone Design Project (TA)	Summer 2022
IE 3860 - Production Planning & Control (TA)	Spring 2022
IE 4460/6460 - Modeling & Analysis of Manufacturing Systems (TA)	Fall 2021

ACADEMIC SERVICE AND LEADERSHIP

INFORMS Student Chapter at Clemson University - President	2023 - 2024
Magna Cum Laude Award 2024	
INFORMS Student Chapter at Clemson University - Vice-president	2022 - 2023
Magna Cum Laude Award 2023	
INFORMS Student Chapter at University of Arkansas - Secretary	2020 - 2021
Cum Laude Award 2021	

ACADEMIC AND PROFESSIONAL DEVELOPMENT

Trailblazers in Engineering Fellow (Purdue University)	2024
IISE Future Faculty Fellow (3F) Program	2023 - 2024
BSMP Research Experience for Undergraduates, University of Arkansas	2015
Non-degree international student, Morgan State University	2014 - 2015
Academic Achievement IES, Morgan State University	2014
Trained Six Sigma Green Belt, ISE Morgan State University	2014

AWARDS AND GRANTS

GSG Graduate Travel Grant, Clemson University	2024
CECAS GSAB Supplementary Travel Award, Clemson University	2024
Research Travel Award, IE Department Clemson University	2022, 2024

PRESENTATIONS

Invited

Lopes da Silva, D. B., Sharkey, T. C., Song, Y. A Robust Bi-level Network Interdiction Problem with Applications in Human Trafficking Disruption. 2025 INFORMS Annual Meeting, Atlanta, GA, Oct 26 - 29.

Lopes da Silva, D. B., Sharkey, T. C., Song, Y. A Robust Bi-level Network Interdiction Problem with Applications in Human Trafficking Disruption. 2025 IISE Annual Conference & Expo, Atlanta, GA, May 31 - Jun 3.

Lopes da Silva, D. B., Sharkey, T. C., Song, Y. A Robust Bi-level Network Interdiction Problem with Applications in Human Trafficking Disruption. 2024 INFORMS Annual Meeting, Seattle, WA, Oct 20-23.

Lopes da Silva, D. B., Sharkey, T. C., Song, Y., Maass, K. L. Bi-objective Bi-level Network Interdiction Problems with Applications in Human Trafficking Disruption. 2024 IISE Annual Conference and Expo, Montreal, Canada, May 18-21.

Lopes da Silva, D. B., Sharkey, T. C., Song, Y. A Human Trafficking Bi-level Network Interdiction Problem. 2023 INFORMS Annual Meeting, Phoenix, AZ, October 14-18.

Lopes da Silva, D. B., Sullivan, K. M. An Optimization-Based Monte Carlo Method for Estimating the Two-Terminal Survival Signature of Systems with Two Component Classes. 2023 INFORMS Conference on Quality, Statistics & Reliability (ICQSR), Raleigh, NC, June 6-8.

Lopes da Silva, D. B., Sharkey, T. C., Song, Y. A Bilevel Network Interdiction Problem with Applications in Human-Trafficking Disruption. 2022 INFORMS Annual Meeting, Indianapolis, IN, October 16-19.

Lopes da Silva, D. B., Sullivan, K. M. Efficiently Estimating Survival Signature of Heterogeneous Two-Terminal Networks through Multi-Objective Optimization. 2022 INFORMS Conference on Security (IConS), Arlington, VA, August 29-30.

Contributed

Lopes da Silva, D. B., Sullivan, K. M. An Optimization-Based Monte Carlo Method for Estimating the Two-Terminal Survival Signature of Systems with Two Component Classes. 2023 INFORMS Conference on Quality, Statistics & Reliability (ICQSR), Raleigh, NC, June 6-8.

Other Presentations

Lopes da Silva, D. B., Sharkey, T. C., Song, Y. A Bi-level Network Interdiction Problem with Applications in Human Trafficking Disruption. PhD Seminar Series, INFORMS Student Chapter at Texas Tech University, (Virtual), 2025.

Lopes da Silva, D. B., Sharkey, T. C., Song, Y. A Bi-level Network Interdiction Problem with Applications in Human Trafficking Disruption. ScholarsConnect, INFORMS OU Student Chapter, (Virtual), 2024.

PROFESSIONAL ACTIVITIES

Journals

Reviewer, Naval Research Logistics (NRL)   (2025 -)

Reviewer, Socio-Economic Planning Sciences   (2025 -)

Session Chair

INFORMS Annual Meeting - Disrupting Human Trafficking   Atlanta, GA, 2025

IISE Annual Conference - OR for Societal Good I   Atlanta, GA, 2025