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 Bi-level Network Interdiction Models for Sex Trafficking Disruption (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).

Sharkey, T. C., Song, Y., Maass, K. L., **Lopes da Silva, D. B.**, Ayler, T., Forliti, T., Friedman, J., Mariotti, M., Nelson, C., Voller, V., Barrick, K., Martin, L. A Framework for Modeling Effective Interventions into Sex Trafficking with Operations Research Models (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 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 Magna Cum Laude Award 2024	2023 - 2024
INFORMS Student Chapter at Clemson University - Vice-president Magna Cum Laude Award 2023	2022 - 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 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

Conference Session Chair

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

Journals

Reviewer, Naval Research Logistics   (2025 -)