Demetrios V. Papazaharias

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Education

State University of New York at Buffalo, Buffalo NY
Doctor of Philosophy, Operations Research — August 2017 - Present
Master of Science, Operations Research — May 2019
Department of Industrial & Systems Engineering

State University of New York at Geneseo, Geneseo NY
Bachelor of Science, Applied Physics *cum laude* — May 2016

Research Interests

Integer programming, polyhedral study and dynamic programming for graph partitioning and network interdiction problems.

Publications

Working Papers

D.V. Papazaharias, J.L. Walteros. Extended Formulations for Simple Graph Partitioning on Sparse Graphs. Anticipated Submission Date: January 2020.

Work Experience

State University of New York at Buffalo, Buffalo NY — August 2017 - Present
Graduate Teaching Assistant

· Created instructional content and workshops for undergraduate and graduate courses
· Prepared and led weekly recitations for undergraduate courses
· Courses:

- IE373: Introduction to Operations Research I
- IE306: Statistics for Engineers
- IE500: Advanced Data Analytics & Predictive Modeling (*Interim Course Instructor*)
- IE504: Facilities Design
- IE573: Discrete Optimization

Sentient Science, Buffalo NY — June 2019 - August 2019
Predictive Analytics Intern

· Incorporated physical models to understand damage signatures related to faults in wind turbines
· Utilized SCADA and customer operational data to assess the condition of wind turbines
· Applied survival analysis techniques to estimate risk of failure for wind turbine components

Presentations

Extended Formulations for Simple Graph Partitioning on Sparse Graphs
INFORMS 2019 Annual Meeting, Seattle WA, United States (*invited*) — October 2019

Disconnecting Networks via Edge Deletions: An Integer Programming Approach
INFORMS 2018 Annual Meeting, Phoenix AZ, United States (*invited*) — November 2018

Technical Experience

Programming Languages	Python (advanced), R (intermediate), Java (basic)
Data Analysis & Optimization	Gurobi (advanced), CPLEX, SQL (basic)
Software & Tools	LaTeX, Git, AWS (S3, EC2)

Selected Coursework

- Linear Programming
- Discrete Optimization
- Logistics Optimization
- Heuristic Optimization
- Design and Analysis of Algorithms
- Nonlinear Optimization
- Network Optimization
- Stochastic Methods
- Applied Stochastic Processes
- Data Mining I (Supervised Learning)
- Data Mining II (Unsupervised Learning)
- Data Analytics & Predictive Modeling
- Decision Making with Advanced Simulation
- Urban Transportation Systems