BURLA ECE ONDES

School of Industrial Engineering, Purdue University

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EDUCATION

Ph.D. in Industrial Engineering

2019 - Present

Purdue University West Lafayette, IN

Thesis topic: Multi-objective simulation optimization

Advisor: Prof. Susan R. Hunter

M.S. in Statistics and Computer Science

May 2023 (expected)

Purdue University, West Lafayette, IN

M.S. in Industrial Engineering

May 2022 (expected)

Purdue University, West Lafayette, IN

B.S. in Industrial and Systems Engineering University of Florida, Gainesville, FL

Summa Cum Laude

2019

RESEARCH INTEREST Simulation optimization, computational complexity and machine learning algorithms

WORKING PAPERS

Ondes, B. E., Hunter, S. R. 2021. An upper bound on the Hausdorff distance between a Pareto set and its discretization in bi-objective convex quadratic optimization. http://www.optimization-online.org/DB_HTML/2021/05/8394.html

RESEARCH EXPERIENCE Graduate Research Assistant advised by Prof. Susan R. Hunter

2019 - Present

School of Industrial Engineering, Purdue University

Deriving performance bounds for multi-objective simulation optimization algorithms

Undergraduate Researcher

2019

advised by Prof. Hongcheng Liu

Department of Industrial and Systems Engineering, University of Florida

Modeled an optimization problem to predict the impact of weighting parameters which determines trade-offs between organs in Inverse Radiotherapy Treatment Planning (IRTP) and utilized reinforcement learning (RL) algorithms to develop a solution methodology for the problem

 $Undergraduate\ Researcher$

2018

advised by Prof. Panos Pardalos

Department of Industrial and Systems Engineering, University of Florida Conducted literature review for robustness, networks and graph theory

TEACHING EXPERIENCE Graduate Teaching Assistant

2019

School of Industrial Engineering, Purdue University

IE 230: Probability and Statistics in Engineering I (Fall 2019), class size: ≈ 180

Undergraduate Teaching Assistant

2018 - 2019

Department of Industrial and Systems Engineering, University of Florida

ESI 4313: Operations Research II (Fall 2018), class size: ≈ 50

ESI 4523: Industrial Systems Simulation (Spring 2019), class size: ≈ 50

HONORS AND AWARDS

Awarded Dr. Theodore J. and Isabel M. Williams Fellowship in Industrial Control Systems, School of Industrial Engineering, Purdue University, 2020

Ranked third in EBEC (European Board of European Students of Technology (BEST) Engineering Competition), Middle East Technical University, 2016

Ranked in first 0.1 percentile in over 2 millions students in Turkish national university entrance exam, 2015

Ranked in the top six mathematics projects among more than 40 projects in Scientific and Technological Research Council of Turkey's national high school mathematics project competition, 2013

LEADERSHIP

Mentoring Chair

2021 - Present

Engineering Academic Career Club, Purdue University

Treasurer and Chair of Social Activities INFORMS Student Chapter, Purdue University 2019 - 2021

SERVICE

Judge at the SURF e-Symposium, Purdue University, 2021

Tutor for ECE 201: Linear Circuit Analysis I, School of Industrial Engineering, Purdue University, 2020

Undergraduate Learning Assistant (Volunteer) for MAC 2311: Analytic Geometry and Calculus I, Department of Mathematics, University of Florida, 2019

CERTIFICATES

Certificates

AND SKILLS

Institute of Industrial Engineering(IISE) Six Sigma Green Belt Certificate

English: Full professional proficiency, Turkish: Native or bilingual proficiency, German: Limited working proficiency

Computer Languages and Software

MatLab, SQL, Python, Julia and VB.Net

ARENA, GAMS and KeyCreator (CAD) software

SOCIETIES

PROFESSIONAL INFORMS, INFORMS Simulation Society, INFORMS Computing Society, INFORMS Analytics Society, INFORMS Women in ORMS Forum