Ashkan Mirzaee

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Education

Ph.D., Industrial Engineering and Operations Research
Minor, Statistics
University of Missouri, Columbia, MO

December 2020

- Advisor: Dr. Ronald G. McGarvey

M.S., Industrial Engineering and Operations Research
University of Missouri, Columbia, MO

May 2017

B.S., Industrial Engineering
Azad University, Arak, Iran

December 2010

Experience

Graduate Research Assistant
University of Missouri, Columbia, MO

February 2016 - present

- Developing a robust optimization model to identify minimum cost-emission of generating electricity by co-firing biomass and natural in coal burner power plants
- Performed linear and spatial panel regression analysis to estimate the impact of woody biomass demand on forest attributes in the Eastern US
- Developed a Python query system for large data analysis of the US Forest Inventory SQL data-sets
- Conducted research and large SQL data analysis for improving demand forecasting methods and minimizing inventory costs for Anheuser-Busch supply chain

Intern Research Assistant
Resources for the Future, Washington, DC

June 2019 - August 2019

- Collaborated to include woody biomass to the RFFs Haiku electricity market model
- Coded a Python web scrapping program to collect large set of woody biomass data for running in Haiku model

Industrial Engineering Operations Specialist
EternoGen Aesthetics, Columbia, MO

March 2016 - December 2016

- Built and maintained database for procurement and inventory management system
- Performed statistical analysis and collaborated to meet ISO 13485 compliance

Graduate Teaching Assistant
University of Missouri, Columbia, MO

January 2015 - January 2016

- Teaching assistant for Engineering Statistic, Manufacturing and Supply Systems, Energy Efficiency and Natural Resources Policy courses
- Delivered lectures and discussions, conducted exams, and helped students with R programming

Computing

Python, R, SQL, Bash, GAMS, HPC Clusters, Linux Administration, Git, Emacs

Presentations and Publications

- CO_2 Emissions Reduction By Identifying Optimal Level of Co-firing Biomass and Natural Gas in Coal-burning Power Plants, INFORMS Annual Conference, October 2019, Seattle, WA

- Woody Biomass Use for Biopower and Its Impact on Forest Resources, INFORMS Annual Conference, November 2018, Phoenix, AZ

- A Multiple Traveling Salesman Problem Model for Unmanned Aerial Vehicles Routing, INFORMS Annual Conference, October 2017, Houston, TX

- Modeling the Unmanned Aerial Vehicle Routing Problem with Time Windows, ASEM International Annual Conference, October 2017, Huntsville, Al

- Mirzaee, A. and Awwad, M., 2017. Shortest Path Algorithm in the Presence of Polyhedral Forbidden Regions. In IISE Annual Conference. Proceedings (pp. 350-355). Institute of Industrial and Systems Engineers (IISE)

- Shortest Path Algorithm in the Presence of Polyhedral Forbidden Regions, IISE Annual Conference, May 2017, Pittsburgh, PA

- M.S. Thesis, Alternative methods for calculating optimal safety stock levels, University of Missouri, Supervisor: Dr. Ronald G. McGarvey

- Calculating Optimal Safety Stock Levels, CELDi Conference, October 2016, Columbia, MO

- Alternative Methods for Calculating Optimal Safety Stock Levels, CELDi Conference, April 2016, Atlanta, GA

Honors and Awards

- Innovative Design Competition, 1st place award ($1,500), IISE Annual Conference, May 2017

- Mizzou Advantage Graduate Award ($600), University of Missouri, April 2017

- Outstanding IMSE Masters Student Award, University of Missouri, March 2017

- GIA Award Scholarship ($10,000), University of Missouri, January 2017

- Institute for Operations Research and the Management Sciences (INFORMS)

- Institute of Industrial and Systems Engineers (IISE)

- Alpha Pi Mu, Industrial Engineering Honor Society

- Graduate Professional Council, Student Affairs Committee, 2015