

ASHKAN MIRZAEI

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EDUCATION

Ph.D., Industrial Engineering and Operations Research *May 2021*

Minor, Statistics

University of Missouri, Columbia, MO

- Advisor: Dr. Ronald G. McGarvey

M.S., Industrial Engineering and Operations Research *May 2017*

University of Missouri, Columbia, MO

B.S., Industrial Engineering *December 2010*

Azad University, Arak, Iran

EXPERIENCE

Graduate Research Assistant *February 2016 - present*

University of Missouri, Columbia, MO

- 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

HPC Systems Administrator *January 2020 - present*

University of Missouri, Columbia, MO

- Install, configure, and maintain multiple Linux systems in support of research computing in a scientific Linux environment for university researchers
- Secure and monitor systems and consult with researchers, and students on securing applications
- Provide documentation and training in the use of a shared high performance computing environment and associated scientific software

Intern Research Assistant *June 2019 - August 2019*

Resources for the Future, Washington, DC

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

Industrial Engineering Operations Specialist *March 2016 - December 2016*

EternoGen Aesthetics, Columbia, MO

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

Graduate Teaching Assistant *January 2015 - January 2016*

University of Missouri, Columbia, MO

- 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, Bash, SQL, GAMS, HPC Clusters, Linux Administration, Git, Emacs

PUBLICATIONS

- Mirzaee, A., Aguilar, F. X. & McGarvey, R. G. Assessment of EU Renewable Energy Directive and US timberland conditions points to need for continued monitoring. *under review* (2019).
- Mirzaee, A. & Awwad, M. Shortest path algorithm in the presence of polyhedral forbidden regions. in *67th Annual Conference and Expo of the Institute of Industrial Engineers 2017* (2017).
- Mirzaee, A. Alternative methods for calculating optimal safety stock levels. (University of Missouri-Columbia, 2017).

PRESENTATIONS

- CO₂ 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
- Shortest Path Algorithm in the Presence of Polyhedral Forbidden Regions, IISE Annual Conference, May 2017, Pittsburgh, PA
- 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

- IMSE Travel Award (\$500), University of Missouri, October 2019
- 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