

RESEARCH INTEREST

Bayesian predictive and prescriptive analytics, Machine learning tools for operations management applications, Data-driven decision making under uncertainty for operations and econometrics applications, Data driven models for analysis of business environments.

EDUCATION

- **Ph.D., Management Science**, University of Wisconsin-Milwaukee, Spring 2022 (expected)
“*Bayesian Stochastic Frontier Modeling for Productivity*”
- **M.S., Industrial Engineering**, University of Wisconsin-Milwaukee, December 2015
“*Water withdrawal and consumption reduction analysis for electrical energy generation system*”
- **B.S., Industrial Engineering**, K. N. Toosi University, Tehran, Iran. September 2012
“*Supply Chain Management and configuration*”

QUALIFICATIONS

- Held online and in person lectures for graduate and undergraduate students on several topics.
- Developed syllabus, presentations, handouts, assignments and other course materials.
- Conducted advanced **Statistical analysis** on small and **large-scale data sets**.
- Leveraged **Supervised, Unsupervised, and Semi-Supervised** Machine Learning algorithms.
- Conducted real world projects in multiple **modern programming languages** (R, Python, SAS, Winbugs).
- Utilized various **Machine Learning libraries** (Scikit-Learn, Keras, Pytorch, Caret, RandomForest).
- Created reports using multiple **visualization techniques** (Seaborn, Matplotlib, Plotly, Ggplot2).
- Analyzed **real-time** processing of **time-series** data.
- Developed **novel algorithms** to provide optimized solutions for complex problems in business environment.
- Cooperated with **cross-functional** internal teams and external **customers to deliver results**.
- Designed experiments, tested hypotheses, and built actionable models to **optimize operations**.

PROFESSIONAL ACADEMIC EXPERIENCE

Adjunct Instructor, Lubar School of Business, University of Wisconsin-Milwaukee, Spring 2020- Present

- **Predictive Analytics for Managers**: Developing statistical thinking for data analytics. Models for analysis of business environment, software tools, interpretation, and communication of results for management applications.

Teaching Assistant, University of Wisconsin-Milwaukee

- **Statistical Modeling in Business Analytics**, Business Administration 210, Fall 2020- Present
- **Predictive Analytics for Managers**, Business Administration 709, Spring 2019-Fall 2019
- **Introduction to Management Statistics**, Business Administration 210, Fall 2018-Spring 2020
- **Engineering Economics**, Industrial Engineering 360, Fall 2016
- **Introduction to Engineering**, Industrial Engineering 111, Fall 2015-Spring 2016
- **Computer-Aided Engineering Drawing**, Industrial Engineering 112, Spring 2014-Fall 2014

Research Assistant, Center for Sustainable Electrical Energy System, University of Wisconsin-Milwaukee, Spring 2015, under the supervision of Professor Adel Nasiri

Project Assistant, Lubar School of Business, Fall 2017-Spring 2018, under the supervision of Professor Ehsan Soofi.

PROFESSIONAL INDUSTRY EXPERIENCE

Data Analyst, Rockwell Automation, Milwaukee, WI 4/2017 – 4/2018

Contributed to the overall productivity of the operations and supply chain at Rockwell Automation by providing statistical data-driven solutions to design, validate, prototype, implement and enhance processes.

Main Projects:

- **Predictive Model**: Developed a Bayesian semiparametric model to predict productivity of production lines.
- **Productivity Improvement**: Led several productivity improvement projects based on real time data analysis.
- **User Interface, Managerial Dashboards**: Created several dashboards for management level control.
- **Employee Training**: Trained more than 200 engineering staff and operations employees.
- **Process Redesign**: Designed and prototyped a fixture that reduced the production time by 40%.
- **Optimization**: Minimized labor cost given the demand based on real time data.

Researcher/Data Scientist, National Business Furniture, Milwaukee, WI 03/2020 – 09/2020

Developed and presented data analytics models for sales to improve revenue management.

Main Projects:

- **Predictive Model**: Developed a Bayesian predictive model for sales with promotion, tariff, and freight costs.
- **Data Cleansing**: Identified and modified inaccurate data points caused by different data dictionary definitions, inconsistent data storage methods, or by user entry errors.
- **Drive Improvement**: Collaborated with the sales experts, managerial board, and scientists to improve sales.
- **Simulation**: Predicted the mean sales given some prediction condition defined by the business leaders.

PUBLICATIONS

Cited 140 times on 10 manuscripts including a book, book chapter, journal and conference papers.

Publications URL: <https://scholar.google.com/citations?user=Jv3ydlcAAAAJ&hl=en>

Refereed Journal Papers:

- N. Nouri, A. Nasiri, M. H. Balali, W. Otieno. "Water Withdrawal and Consumption Reduction for Electrical Energy Generation Systems". *Journal of Applied Energy*. (2019).
- M. Rabbani, F. Navazi, H. Farrokhi-Asl, N. Nouri, "A Hybrid Genetic Algorithm for Multi-Depot Vehicle Routing Problem with Time Window Considering Repair and Pick-up", *Journal of Modelling in Management*, (2018).
- M. H. Balali, N. Nouri, E. Omrani, A. Nasiri, W. Otieno "An Overview of Environmental, Economic, and Material Developments of Solar and Wind Sources Coupled with Energy Storage Systems", *International Journal of Energy Research*, (2017).
- N. Nouri, M. H. Balali, A. Nasiri, M. Rashidi, W. Otieno. "A multi-predictor model to estimate solar and wind energy generations", *International Journal of Energy Research*, (2017).
- M. H. Balali, N. Nouri, K. Pichka, H. Seifoddini. "Facility Location Selection of a Manufactory in the United State of America." *International Research Journal of Applied & Basic Sciences (IRJABS)*, (2016).
- M. H. Balali, N. Nouri, and E. Pakdamanian. "Application of the Minimax Control Chart for multivariate manufacturing process." *International Research Journal of Applied & Basic Sciences (IRJABS)*, (2013).

Book:

- M. H. Balali, N. Nouri, A. Nasiri, T. Zhao, "Internet of Things (IoT) for Data Intensive Industrial and Building Asset Management: Algorithms and Implementation", Springer, 2020.

Book Chapter:

- M. H. Balali, N. Nouri, W. Otieno "Environmental Analysis of Self-Lubricating Composites", Book Chapter of "Advances in Self Lubricating Composites", Springer, April 2018.

Working Papers:

- N. Nouri, E. Soofi, K. Kuzu, "A Bayesian Semi-parametric Stochastic Frontier Model for Labor Productivity in Production Lines."
- N. Nouri, K. Kuzu, "Generalized True Random Effect (GTRE) Stochastic frontier model for clustered data."

Conference Paper:

- M. H. Balali, N. Nouri, A. Nasiri, H. Seifoddini, "Development of an Economical Model for a Hybrid System of Renewable Energy and Energy Storage." *IEEE Xplore ICRERA (2015)*.

Presentations:

- N. Nouri, Mahsa Mardi Koream, E. Soofi, "A Bayesian Predictive sales Model with Promotion, Tariff, and Freight Costs." *INFORMS (2020)*.
- N. Nouri, E. Soofi, "A Bayesian Stochastic Frontier Model for Productivity Index." *POMS (2019)*.
- N. Nouri, E. Soofi, "A Bayesian Stochastic Frontier Model for Productivity Index." *Lubar Pecha Kucha Research Presentation (2019)*.
- N. Nouri, T. Haas, "Maximum Profit- Minimum Environmental Impacts of Coal Generated Electricity Supply Chain." *MSOM (2018)*.

HONORS / AWARDS

- Lubar Doctoral Scholarship, University of Wisconsin-Milwaukee, (2019-2021)
- Maryam Zahedi Doctoral Publication Award, University of Wisconsin-Milwaukee, (2019-2020)
- Graduate Fellowship, University of Wisconsin-Milwaukee, (2017- 2021)
- Graduate Chancellor Award, University of Wisconsin-Milwaukee, (2017)
- Taught six different courses and received an overall average teaching evaluation of over 4.5 out of 5
- Graduation with honour, GPA 4/4, Department of Industrial Engineering, University of Wisconsin-Milwaukee, (Dec 2015)

REFERENCES

- **Kaan Kuzu**, Associate Professor, University of Wisconsin-Milwaukee, 814-880-7354, kuzu@uwm.edu
- **Ehsan Soofi**, Professor, University of Wisconsin-Milwaukee, 414-202-6666, esoofi@uwm.edu
- **Adel Nasiri**, Professor, University of Wisconsin-Milwaukee, 414-628-6136, nasiri@uwm.edu