Mohammad Ali Alamdar Yazdi, Ph.D.

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Research Interests

Data Visualization, Artificial Intelligence, Machine Learning, Big Data Analytic, Statistical Analysis

Academic Experience

- Associate Professor of Practice, Johns Hopkins Carey Business School, Baltimore, MD
  August 2024 – present

- Assistant Professor of Practice, Johns Hopkins Carey Business School, Baltimore, MD
  September 2018 - August 2024

Education

- Ph.D., Industrial Engineering and Systems Engineering, Auburn University, Auburn, AL
  August 2018
  Dissertation Title: "A Web-Based Personal Driving Assistant Using Real-Time Data and a Dynamic Programming Model"

- M.Sc., Computer Science and Software Engineering, Auburn University, Auburn, AL
  May 2018
  Thesis Title: "Optimization of Split Keyboard Design for Touchscreen Devices"

- M.Eng., Industrial Engineering and Systems Engineering, Auburn University, Auburn, AL
  December 2015

Current Project

The Johns Hopkins Drug Supply Chain Data Dashboard (2024 – present)

- Leading the development of an interactive data dashboard to improve transparency and resiliency in the U.S. pharmaceutical supply chain.
- Funded by the 2024 Johns Hopkins NEXUS Research Award.

Peer-Reviewed Journal Publications

1. Dada, M., Vishal Mundly, V., Chambers, C., **Alamdar Yazdi, M. A.**, Ha, C., Toporcer, S., Zhou, Y., Gan, Y., Xing, Z., Mooney, M., Smith, E., Kumian, E., Williams, K. (2022). Managing prior approval for site-of-service referrals: an algorithmic approach. *BMC Health Services Research, 22(1)*, 1-7.

2. Cai, M., Mehdizadeh, A., Hu, Q., **Alamdar Yazdi, M. A.**, Vinel, A., Davis, K. C., ... & Rigdon, S. E. (2022). Hierarchical point process models for recurring safety critical events involving commercial truck drivers: A reliability framework for human performance modeling. *Journal of Quality Technology, 54(4),* 466-484.

3. Mehdizadeh, A., **Alamdar Yazdi, M. A.**, Cai, M., Hu, Q., Vinel, A., Rigdon, S. E., ... & Megahed, F. M. (2021). Predicting unsafe driving risk among commercial truck drivers using machine learning: lessons learned from the surveillance of 20 million driving miles. *Accident Analysis & Prevention, 159*, 106285 (1-12).

4. Cai, M., **Alamdar Yazdi, M. A.**, Mehdizadeh, A., Hu, Q., Vinel, A., Davis, K., ... & Rigdon, S. E. (2021). The association between crashes and safety-critical events: Synthesized evidence from crash reports and naturalistic driving data among commercial truck drivers. *Transportation Research Part C: Emerging Technologies, 126*, 103016 (119).

5. Mehdizadeh, A., Cai, M., Hu, Q., **Alamdar Yazdi, M. A.**, Mohabbati-Kalejahi, N., Vinel, A., ... & Megahed, F. M. (2020). A review of data analytic applications in road traffic safety. Part 1: Descriptive and predictive modeling. *Sensors, 20(4)*, 1107 (1-24).

6. Hu, Q., Cai, M., Mohabbati-Kalejahi, N., Mehdizadeh, A., **Alamdar Yazdi, M. A.**, Vinel, A., ... & Megahed, F. M. (2020). A review of data analytic applications in road traffic safety. Part 2: Prescriptive modeling. *Sensors, 20(4)*, 1096 (1-19).

7. **Alamdar Yazdi, M. A.**, Negahban, A., Cavuoto, L., & Megahed, F. M. (2019). Optimization of split keyboard design for touchscreen devices. *International Journal of Human–Computer Interaction, 35(6)*, 468-477.

8. Mohabbati-Kalejahi, N., **Alamdar Yazdi, M. A.**, Megahed, F. M., Schaefer, S. Y., Boyd, L. A., Lang, C. E., & Lohse, K. R. (2017). Streamlining science with structured data archives: insights from stroke rehabilitation. *Scientometrics, 113*, 969-983.

9. Maman, Z. S., **Alamdar Yazdi, M. A.**, Cavuoto, L. A., & Megahed, F. M. (2017). A data-driven approach to modeling physical fatigue in the workplace using wearable sensors. *Applied Ergonomics, 65*, 515-529.

Working Papers and Journal Submissions

- Dada, M., Chambers, C., **Alamdar Yazdi, M. A.**, Herman, J., DeWeese, H., Williams, K., Case Article Real Time Location Systems and Radiation Oncology Clinic Expansion (2023)
- Dada, M., Chambers, C., **Alamdar Yazdi, M. A.**, Herman, J., DeWeese, H., Williams, K., Real Time Location Systems and Radiation Oncology Clinic Expansion (2023)
- **Alamdar Yazdi, M. A.**, Dada, M., Case Article City of Hamilton: Fuel Procurement Improvement Project (2023)
- **Alamdar Yazdi, M. A.**, City of Hamilton: Fuel Procurement Improvement Project (2023)
- Chambers, C., **Alamdar Yazdi, M. A.**, Case Article-Retirement Planning & Management of Risk (2022)
- Chambers, C., **Alamdar Yazdi, M. A.**, Retirement Planning & Management of Risk (2022)

Conference Presentations and Talks

"Data Visualization: A Key Skill for Modern Professional", Rensselaer Polytechnic Institute, Troy, NY, September 2023.

"Predicting unsafe driving risk among commercial truck drivers using machine learning: lessons learned from the surveillance of 20 million driving miles"

- INFORMS Annual Meeting, Seattle, WA, October 2019.
- INFORMS Annual Meeting, Houston, TX, October 2017.
- INFORMS Annual Meeting, Nashville, TN, October 2016.

"Optimization of split keyboard design for touchscreen devices"

- IIE Annual Conference and Expo, IISE, Nashville, TN, June 2015.
- This is Research: Student Symposium, Auburn University, AL, April 2015.
- Graduate Engineering Research Showcase, Auburn University, AL, October 2014.

Awards

- Dean's Award for Faculty Excellence at Carey Business School, AY 2022, AY 2023
- Carey Teaching Innovation Grant, 2023
- Outstanding Ph.D. Student of Department of Industrial and Systems Engineering, Auburn University, Auburn, AL, 2018.

Teaching at Johns Hopkins Carey Business School

- Instructed 86 sections encompassing 7 distinct courses, reaching over 3,100 master's students, with a predominant focus on programs in Business Analytics, Risk Management, Information Systems, Marketing, Finance, and Business Administration.

- Conducted classes in various formats, including in-person sessions at the Harbor East, Washington DC, and Homewood campuses, as well as remote, hybrid, and online delivery methods.

- Served as the course leader for three courses: Data Visualization, Online Data Visualization, and Data Science: Big Data Consulting Project.

- Designed and developed three distinct versions of the Data Visualization Course, each of which consistently ranked among the top 5 in terms of enrollment numbers for elective courses during AY 2022-2023.

- Organized and facilitated four programming workshops to enhance students' skillsets.

Courses

1. BU.520.650 Data Visualization (MS, Flex MBA)
   Designed and developed the in-person course in 2019 for the first time at Carey.
   Designed and developed the online version of the course in 2021.
   Majorly revised the course by changing the tool used in the course from R to Tableau in 2023.
   Guided students in the creation of over 300 web applications. Links to projects: R Projects, Tableau Projects.
   Semesters: Fall 2024, Summer 2024, Summer 2023, Summer 2022, Summer 2021, Summer 2020, Summer 2019

2. BU.920.623 Data Science: Big Data Consulting Project (Full-time MBA)
   Leading Full-Time MBA students in collaboration with the McCormick Company on a realworld project.
   Semesters: Spring 2025, Spring 2024, Spring 2023

3. BU.510.615 Python for Data Analysis (MS)
   Semesters: Spring 2025, Spring 2024, Spring 2023, Spring 2022

4. BU.667.310 Business Analytics and Statistics – Homewood (Undergraduate)
   Majorly revised the course in 2023.
   Semesters: Fall 2024, Fall 2023

5. BU.510.650 Data Analytics (MS, Full-time MBA, Flex MBA)
   Semesters: Fall 2024, Fall 2023, Spring 2023, Fall 2022, Spring 2022, Fall 2021, Fall 2020, Fall 2019, Spring 2019.

6. BU.510.601 Statistical Analysis (MS, Flex MBA)
   Semesters: Fall 2022

7. BU.610.625 Simulation and Strategic Options (MS, Full-time MBA)
   Semesters: Spring 2020, Spring 2019.

Workshops

- 1-day Tableau Workshop for FT MBA Programs, January 2025.
- 1-day Tableau Workshop for All MS Programs, August 2024.
- 5-day Python Crash Course for MS Marketing and MBA students, March 2023.
- 1-day R Workshop, MS Business Analytics & Risk Management Orientation, August 2021.
- 2-day Data Science Bootcamp, FT MBA Foundations Week, August 2020.

Service at Johns Hopkins Carey Business School

- Member, Focus Group on Carey Website Redesign, 2024 - present
- Member, Student Speaker Selection Committee, 2023
- Member, Curriculum Subcommittee for Operations Management and Business Analytics, 2022 - present
- Member, Academic Ethics Board, 2022 - present
- Member, Strategic IT Committee, 2020 – 2023
- Member, Operations Management and Business Analytics Practice Track Faculty Hiring, 2022

Computer Skills

Python, R, Excel, MySQL, Tableau, HTML, CSS, JavaScript, PHP, SPSS.

Organizations

- Member, INFORMS, Institute for Operations Research and the Management Science, 2016-2020.
- Member, POMS, Production and Operations Management Society, 2019.
- Member, IISE, Institute of Industrial and Systems Engineers, 2015.