

MYUNGEUN EOM

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RESEARCH INTERESTS

Decision-making under uncertainty, especially for online platforms and matching markets
Large-scale optimization in transportation, supply chain and logistics

EDUCATION

Georgia Institute of Technology Ph.D. in Industrial and Systems Engineering	08/2021 - 08/2026
• Thesis: Large-Scale Optimization Models for On-demand and E-Commerce Logistics • Advisor: Dr. Alejandro Toriello	
Pohang University of Science and Technology, Korea M.S. in Industrial and Management Engineering	09/2018 - 08/2020
• Thesis: Integrated Transfer Planning and Scheduling for the Material Blending Production System • Advisor: Dr. Byung-In Kim	
B.S. in Industrial and Management Engineering (Highest Honors)	03/2014 - 08/2018
Graz University of Technology, Austria Exchange student	09/2016 - 02/2017

ACADEMIC APPOINTMENTS

Auburn University Assistant Professor, Department of Industrial and Systems Engineering	08/2026 - present
Georgia Institute of Technology Graduate Research Assistant, Department of Industrial and Systems Engineering	08/2021 - 08/2026
University of California, Berkeley Visiting Student Researcher (Host: Dr. Chiwei Yan)	05/2026 - 07/2026

PUBLICATIONS

Working papers

1. Myungeun Eom, Alan Erera, Alejandro Toriello. Recursive Partitioning and Batching for Network Design with Service Time Guarantees at Massive Scale, *Submitted* [\[pdf\]](#)
2. Myungeun Eom, Alejandro Toriello. Case-pack Allocation for E-commerce Retailers, *Submitted* [\[pdf\]](#)
3. Myungeun Eom, Myunseok Cheon, Yutong Wu, Omer B. Kinay. Inventory Distribution Under Sortation Capacity at Industrial Scale: A Column-Generation-Based Heuristic, *In preparation*

Published or Accepted

1. Myungeun Eom, Alejandro Toriello. 2025. Batching and Greedy Policies: How Good Are They in Dynamic Matching?, *Manufacturing and Service Operations Management*, 28(2), 479-495. [\[pdf\]](#)
2. Seungyeop Lee, Myungeun Eom, Byung-In Kim. 2024. Two-stage algorithm for traffic signal optimization and web service system development. *IET Intelligent Transport Systems*, 18, 1697-1715. [\[pdf\]](#)
3. Myungeun Eom, Byung-In Kim. 2022. Combinatorial Benders decomposition for melted material blending systems considering transportation and scheduling. *International Journal of Production Research*, 61(10), 3481-3503. [\[pdf\]](#)
4. Jaesang Park, Byung-In Kim, Myungeun Eom, Byung Kwan Choi. 2021. Operating room scheduling considering surgeons' preferences and cooperative operations. *Computers and Industrial Engineering*, 154, 107306. [\[pdf\]](#)
5. Myungeun Eom, Byung-In Kim. 2020. The traffic signal control problem for intersections: a review. *European Transport Research Review*, 12(50). [\[pdf\]](#)
6. Hyunjoon Kim, Myungeun Eom, Byung-In Kim. 2020. Development of strategic hydrogen refueling station deployment plan for Korea. *International Journal of Hydrogen Energy*, 45(38), 19900-19911. [\[pdf\]](#)

PRESENTATIONS

1. Myungeun Eom, Alejandro Toriello, Case-Pack Allocation in Retail Distribution Networks, KITECH Global Seminar, August 24, 2026.
2. Myungeun Eom, Alejandro Toriello, Case-Pack Allocation in Retail Distribution Networks, TSL Conference 2026, Boston, Massachusetts, USA, July 26-29, 2026.
3. Myungeun Eom, Alan Erera, Alejandro Toriello, Recursive Partitioning and Batching for Massive-Scale Network Design with Service Time Guarantees, 2026 INFORMS Optimization Society Conference, Atlanta, Georgia, USA, March 20-22, 2025.
4. Myungeun Eom, Alejandro Toriello, Asymptotic Analysis of Simple Policies in Dynamic Nonbipartite Matching, CALOP Seminar at POSTECH, Pohang, South Korea, December 23, 2025.
5. Myungeun Eom, Alejandro Toriello, Dynamic NonBipartite Matching in Transportation, 2025 INFORMS Annual Meeting, Atlanta, Georgia, USA, October 26-29, 2025.
6. Myungeun Eom, Alan Erera, Alejandro Toriello, Recursive Partitioning and Batching for Massive-Scale Network Design with Service Time Guarantees, Invited Seminar at Morehouse College, Atlanta, Georgia, USA, September 11, 2025.
7. Myungeun Eom, Alejandro Toriello, Batching and Greedy Policies: How Good Are They in Dynamic Matching?, 2025 Purdue Supply Chain and Operations Management Conference, West Lafayette, Indiana, USA, August 22-24, 2025.
8. Myungeun Eom, Alan Erera, Alejandro Toriello, Recursive Partitioning and Batching for Massive-Scale Network Design with Service Time Guarantees, Annual IISE Conference and Expo 2025, Atlanta, Georgia, USA, May 31-June 3, 2025.
9. Myungeun Eom, Alejandro Toriello, Batching and Greedy Policies: How Good Are They in Dynamic Matching?, 2025 ICS Conference, Toronto, Canada, March 14-16, 2025.
10. Myungeun Eom, Alan Erera, Alejandro Toriello, Recursive Partitioning and Batching for Massive-Scale Network Design with Service Time Guarantees, 2024 INFORMS Annual Meeting, Seattle, Washington, USA, October 20-23, 2024.

11. Myungeun Eom, Alejandro Toriello, Batching and Greedy Policies: How Good Are They in Dynamic Matching? (poster), 2024 Young Researchers Workshop, Cornell University, October 9-11, 2024.
12. Myungeun Eom, Alejandro Toriello, An Analysis of Batching and Greedy Policies in Dynamic Matching, 2023 INFORMS Annual Meeting, Phoenix, Arizona, USA, October 15-19, 2023.
13. Myungeun Eom, Alejandro Toriello, An Analysis of Batching and Greedy Policies in Dynamic Matching, TSL Conference 2023, Chicago, Illinois, USA, July 23-26, 2023.
14. Myungeun Eom, Alejandro Toriello, An Analysis of Batching and Greedy Policies in Dynamic Matching, Georgia Tech ISyE Student Seminar, Spring 2023.
15. Myungeun Eom, Byung-In Kim, A Benders decomposition algorithm for the scheduling problem of a material blending production system, 2020 Fall Conference of KIIE, Seoul, South Korea, November 13, 2020.
16. Myungeun Eom, Byung-In Kim, Adaptive traffic signal control for intersection networks, 2019 INFORMS Annual Meeting, Seattle, Washington, USA, October 20-23, 2019.

TEACHING EXPERIENCE

Supply Chain Modeling: Logistics (ISyE 3103, Georgia Tech) Spring 2025
Instructor

- Taught mid-size (39 students) senior-level undergraduate course as record of instructor
- Covered fundamental models and algorithms in inventory management, transportation engineering, and logistics systems design

Information System Technology (IMEN 281, POSTECH) Fall 2018
Graduate Teaching Assistant

WORK EXPERIENCE

Amazon
Applied Scientist Intern 05/2025 - 08/2025

- Worked on inbound placement team of supply chain optimization organization
- Enhanced a column generation-based algorithm for a large-scale inventory distribution problem under capacitated environment
- Reduced solution time by 65%

Applied Scientist Intern 05/2024 - 08/2024

- Worked on middle mile planning and routing optimization science team
- Developed models to schedule driver breaks in route planning algorithm and productized the code

VUNO Inc. Korea
Research Intern 03/2017 - 08/2017

- Worked on bone age assessment team using X-ray images and deep learning

PROFESSIONAL SERVICE

Georgia Tech ISyE Student Seminar Organizing Committee (Fall 2025 - Spring 2026)

Conference proceeding referee for Annual IIE Conference and Expo 2025

Session organizer for Annual IIE Conference and Expo 2025

Journal referee for Transportation Science, European Journal of Operations Research, and Omega

Member of INFORMS Transportation Science and Logistics (TSL) and Manufacturing and Service Operations Management (MSOM) Societies and Institute of Industrial and Systems Engineers (IISE)

HONORS AND SCHOLARSHIPS

Nominated for IISE Future Faculty Fellows Program	2024 - 2025
Kwanjeong Study Abroad Scholarship, Kwanjeong Educational Foundation	2022 - 2026
Stewart Topper Fellowship award, Industrial and Systems Engineering, Georgia Tech	2021
Jung Min Geun Laboratory Scholarship, POSTECH	2018
National Scholarship for Science and Engineering, Korea Student Aid Foundation	2014-2018
Dean's List, Department of Industrial and Management Engineering, POSTECH	2014-2018