

Amro El-Adle (he/his/him)

US Citizen

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EDUCATION

- University of Massachusetts, Amherst** Amherst, Massachusetts Sep 2016 – May 2021 (expected)
- PhD Candidate in Management Science, Isenberg School of Management (ISOM)
 - Dissertation: “Analytics-Based Optimization for the Integration of Drones into Last-Mile Logistics”
 - Dissertation Committee: Professors Ahmed Ghoniem (Chair); Senay Solak; Hari Balasubramanian

Amherst College Amherst, Massachusetts

Sep 2009 – May 2013

- Bachelor of Arts in Economics and Mathematics

AWARDS

- Isenberg School of Management Doctoral Fellowship (2016)
- Amherst College Graduate Fellowship (2018 – 2020)

RESEARCH

- My research investigates supply chain management using analytics, particularly the integration of aerial drones into last-mile deliveries. Using exact/heuristic optimization approaches, my work exploits data and decision analytics jointly to provide decision-making tools for last-mile logistics.

REFEREED PUBLICATIONS

- [A1] **El-Adle, A.M.**, Ghoniem, A., Haouari, M. (2019). Parcel Delivery by Vehicle and Drone. *Journal of the Operational Research Society*, 1-19.

UNDER REVIEW

- [A2] **El-Adle, A.M.**, Ghoniem, A., Haouari, M. (2020). Last-Mile Delivery with Drone Eligibility. *INFORMS Journal on Computing*. First Round of Review.

WORKING MANUSCRIPTS

- [A3] **El-Adle, A.M.**, Ghoniem, A., Haouari, M. (2020). An Optimization-Based Approach for Joint Vehicle-Drone Parcel Delivery. Target Outlet: *IIE Transactions*.
- [A4] **El-Adle, A.M.**, Ghoniem, A., Haouari, M. (2020). Predictive Factors in Drone Delivery Eligibility. Target Outlet: *Journal of Operations Management*.
- [A5] Ghoniem, A., **El-Adle, A.M.** (2020). Joint Parcel Scheduling-Routing Using a Vehicle and a Companion Drone. Target Outlet: *INFORMS Journal on Computing*.

PRESENTATIONS (INVITED)

- INFORMS Annual Conference 2020 (Virtual): “A Tactical Traveling Salesman Problem with Drone Eligibility”
- Academy of Management Annual Meeting 2020 (Virtual): “Analytic Approaches in Last-Mile Delivery with Drones”
- INFORMS Annual Conference 2019 (Seattle): “The TSP with Drone: Exact & Heuristic Approaches”
- POMS Annual Conference 2019 (Washington, D.C.): “Parcel Delivery by Vehicle and Drone”
- IIE Annual Conference 2018 (Orlando): “Joint Vehicle-Drone Deployment Tactics”
- INFORMS Annual Conference 2017 (Houston): “A Traveling Salesman Problem with Drones”

TEACHING EXPERIENCE

Instructor

- OIM 240 – Business Data Analysis: Undergraduate core course
 - Spring 2020 – Instructor Evaluation: 4.9/5, Class size = 42
 - Fall 2019 – Instructor Evaluation: 4.9/5, Class size = 41
 - Spring 2019 – Instructor Evaluation: 3.9/5, Class size = 38
 - Fall 2018 – Instructor Evaluation: 4.4/5, Class size = 40
- OIM 301 – Introduction to Operations Management: Undergraduate core course
 - Fall 2019 (online) – Instructor Evaluation: 4.7/5, Class size = 39

Teaching Assistant

- OIM 410 – Business Process Optimization: Undergraduate core course (Fall 2016/17)
- OIM 412 – Supply Chain Management: Undergraduate core course (Fall 2016/17/18, Spring 17/19)
- SCH-MGT 752 – Deterministic Modeling: MBA/PhD course (Fall 2018)
- SCH-MGT 825X – Integer Programming: MBA/PhD course (Spring 2019/20)

SERVICE TO PROFESSION/MENTORSHIP

- Invited speaker at Amherst College Graduate Careers in Mathematics event (2017)
- Ad hoc reviewer: *Transportation Research Part C; Journal of the Operational Research Society*
- Volunteer for Questbridge College Match Program, connecting low-income students with elite colleges

PROFESSIONAL EXPERIENCE

Data Science Intern at Volpe National Transportation Systems Center Cambridge, MA Jun – Aug 2020
Multi-modal research division of U.S. Department of Transportation

- Co-developed Python-based optimization modules for a scenario-testing tool used by federal agencies to flow fuel and freight commodities along US roadways, railways, and waterways.
- Restructured queries to relational (SQLite) and geospatial (ArcGIS) databases to reduce memory requirements by nearly 40% for the Freight and Fuel Optimization Tool ([FTOT](#)).
- Investigated traffic pattern trends in crowd-sourced transportation data using exploratory feature analysis and regression modelling.

Associate Product Manager at Maxlite West Caldwell, NJ

May 2015 – Aug 2016

Management Associate at Maxlite

Jul 2013 – Apr 2015

Manufacturer of energy-efficient lighting; Annual Revenue: \$100M+

- Led 3 new projects after driving their development through engineering, marketing, and sales teams. The categories introduced ~\$5M of new product sales in their first 12 months on the market.
- Co-inventor of 3 industrial/mechanical design [patents](#).

Editor-in-Chief at *The Amherst Student* Amherst, MA

Nov 2010 – Nov 2012

Newspaper of Amherst College; Distribution of 2,000 copies

- Led weekly production of independent college newspaper with 20+ members of editorial staff.