Yuchen Luo

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EDUCATION

University of Maryland, College Park, MD, US Aug 2016 - July 2022
Ph.D. in Applied Mathematics & Statistics, and Scientific Computing
Advisor: Bruce Golden, Rui Zhang
GPA: 3.78/4.00

University of Edinburgh, Edinburgh, UK Sep 2013 - Jun 2016
BSc (Hons) in Applied Mathematics
GPA: 4.00/4.00

International School of Eindhoven, Eindhoven, Netherlands Aug 2010 - May 2013
International Baccalaureate

SKILLS

- **Technical**: Mixed Integer Linear Programming, Vehicle Routing, Network Optimization, Column Generation, Heuristics, Clustering.
- **Programming**: Python, Alteryx, Gurobi, PuLP, Tableau, SQL, AIMMS, Supply Chain Guru, MATLAB

EXPERIENCE

Assistant Teaching Professor, University of Colorado Boulder, Boulder CO, US Aug 2025- Present
- Delivered supply chain and operations management undergraduate courses.
- Facilitated interactive learning through tools such as iClicker, in-class games, case studies and real-world consulting examples from professional experience.
- Evaluated student performance fairly and consistently, providing constructive feedback on assignments, projects, and participation.

Lead Data Scientist, Bain & Company, Dallas TX, US Sep 2022 – July 2025
- Built a digital twin of clients' current supply chain networks to visualize and identify areas for improvement.
- Conducted specific analyses, including optimizing product mix allocation and service levels, make-or-buy analysis, and determining optimal location and production capabilities of greenfield facilities.
- Skilled in working in an agile and collaborative environment with clients across various industries, including retail, manufacturing, industrial distribution, and utilities.

Research Assistant, University of Maryland, College Park MD, US Sep 2019 – Aug 2022
- Examined the routing problem with a vehicle visiting locations in a region while staying close to a center of the region. Proposed a triangular path method, in which the vehicle no longer travels in a straight line between two locations, and showed that the resulting triangular path tour is closer to the center than a tour that only contains direct edges.
- Studied the patrol routing problem with multiple vehicles and a high crime area. Proposed four approaches with the constraint that at least one vehicle is inside the high crime area. Conducted extensive computational experiments using simulated and real-world data.
- Investigated the Paired Mail Carriers Problem, which allows two mail carriers per truck, and designed a mixed integer linear programming formulation and two heuristics to solve the routing and scheduling of mail carriers. Performed cost analysis for two mail carriers per truck.

Teaching Assistant, University of Maryland, College Park MD, US Sep 2016 – May 2022
- Led discussion sessions for courses including calculus, probability and differential equations.

PUBLICATIONS
Refereed Journal Papers:
- "A Fresh Look at the Traveling Salesman Problem with a Center" (with B. Golden, S. Poikonen, and R. Zhang), Computers & Operations Research, 143, 105748, 2022.
- "The Paired Mail Carrier Problem" (with B. Golden, S. Poikonen, E. Wasil, and R. Zhang), European Journal of Operational Research, 308(2), 801-817, 2023.
- "The Hot Spot Patrol Problem" (with B. Golden and R. Zhang), INFORMS Journal on Computing, 35(6):1286-1307.
- "On delivery policies for a truck-and-drone tandem in disaster relief" (with B.Golden et al.), IISE Transactions, 1-17