

RAYEN TAN

PhD Candidate, Industrial and Operations Engineering, University of Michigan

rayent@umich.edu • rayentan.com

[Google Scholar](#) • [ORCID 0009-0005-0624-9987](#)

RESEARCH INTERESTS

Methods: approximation algorithms, combinatorial optimization, stochastic optimization

Applications: routing, scheduling, sequential testing

EDUCATION

University of Michigan

PhD in Industrial and Operations Engineering

Ann Arbor, MI

expected May 2027

- Advisor: Viswanath Nagarajan
- Dissertation: *Limited Adaptivity, Economies of Scale, and Distributional Uncertainty in Stochastic Optimization*

M.S.E. in Industrial and Operations Engineering

2024

National University of Singapore

Singapore

B.Eng. in Industrial and Systems Engineering, Honors (Highest Distinction)

2022

B.Soc.Sci. in Economics, Honors (Highest Distinction)

2022

PUBLICATIONS

Journal Articles

- [J1] B. Harris, V. Nagarajan, and **R. Tan**[†]. [Sequential Testing with Subadditive Costs](#). Second-round minor revision at *Mathematical Programming*.
Conference version: [C1].
- [J2] **R. Tan** and V. Nagarajan. [Distributionally Robust \$k\$ -of- \$n\$ Sequential Testing](#). Under review at *Operations Research*.
- [J3] **R. Tan**, R. Ghuge, and V. Nagarajan (2026). [Informative Path Planning with Limited Adaptivity](#). *INFORMS Journal on Computing*. Published online ahead of print.
Awarded the Murty Prize for best student paper on optimization (2025).
Conference version: [C2].
- [J4] **R. Tan**, A. Xu, and V. Nagarajan (2025). [A General Framework for Sequential Batch-Testing](#). *Operations Research Letters*, 63:107348.
Awarded the *Operations Research Letters* 2025 Best Paper Prize.

Refereed Conference Proceedings

- [C1] B. Harris, V. Nagarajan, and **R. Tan**[†] (2025). [Sequential Testing with Subadditive Costs](#). *26th International Conference on Integer Programming and Combinatorial Optimization (IPCO 2025)*, Baltimore, MD, June 11–13. LNCS 15620:283–296.
Journal version: [J1].

[†] Authors of these papers are listed alphabetically.

- [C2] **R. Tan**, R. Ghuge, and V. Nagarajan (2024). [Informative Path Planning with Limited Adaptivity](#). *27th International Conference on Artificial Intelligence and Statistics (AISTATS 2024)*, Valencia, Spain, May 2–4. PMLR 238:4006–4014.
Journal version: [J3].

AWARDS AND GRANTS

- *Operations Research Letters 2025 Best Paper Prize*, awarded for [J4] 2026
- *Murty Prize* (best student paper on optimization), awarded for [J3] 2025
- Rackham Conference Travel Grant, University of Michigan 2024, 2025

CONFERENCE PRESENTATIONS

- Distributionally Robust Sequential Testing. *INFORMS Annual Meeting*, San Francisco, CA, November 2026 (upcoming).
- Sequential Testing with Subadditive Costs. *INFORMS Annual Meeting*, Atlanta, GA, October 2025.
- Informative Path Planning with Limited Adaptivity. *INFORMS Annual Meeting*, Seattle, WA, October 2024.
- Informative Path Planning with Limited Adaptivity. *AISTATS*, Valencia, Spain, May 2024.

TEACHING EXPERIENCE

Graduate Student Instructor (GSI), University of Michigan

IOE 424: Practicum in Production and Service Systems Fall 2026

IOE 547: Supply Chain Facilities Winter 2026

IOE 265: Probability and Statistics for Engineers Fall 2025

IOE 511: Continuous Optimization Methods Winter 2025

IOE 410: Advanced Optimization and Computational Methods Fall 2024

Teaching Assistant, National University of Singapore

IE2110: Operations Research I Fall 2019

REFERENCES

Viswanath Nagarajan

Associate Professor
Industrial and Operations
Engineering
University of Michigan
viswa@umich.edu

Jon Lee

G. Lawton and Louise G.
Johnson Professor of
Engineering
Industrial and Operations
Engineering
University of Michigan
jonxlee@umich.edu

Nikhil Bansal

Patrick C. Fischer Professor of
Theoretical Computer Science
Computer Science and
Engineering
University of Michigan
bansaln@umich.edu