# HARIPRIYA PULYASSARY

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#### **EDUCATION**

AUG 2027 PhD Student - Operations Research

(Expected) Advisors: Prof. David Shmoys & Prof. Manxi Wu

**Cornell University** 

Aug 2022 Masters of Mathematics in Combinatorics & Optimization

Advisor: Prof. Chaitanya Swamy

Thesis: Algorithm Design for Ordinal Settings

University of Waterloo

APR 2021 Bachelors in Computer Science (Co-op)

Joint Honours in Combinatorics & Optimization,

Minor in Statistics University of Waterloo

#### PUBLISHED ARTICLES

2024 Network Flow Problems with Electric Vehicles
H. Pulyassary, K. Kollias, A. Schilds, D. Shmoys, M. Wu, *IPCO 2024* 

Capacity Allocation and Pricing of High Occupancy Toll Lane Systems with Heterogeneous Travelers H. Pulyassary, R. Yang, Z. Zhang, M. Wu, *CDC 2023* 

The aggregation closure is polyhedral for packing and covering integer programs.

K. Pashkovich, L. Poirrier, and H. Pulyassary, *Mathematical Programming* 

#### **UNDER REVIEW**

Digital Transformation in Transportation Systems: Navigating User Behavior and System Efficiency H. Pulyassary and M. Wu, *INFORMS 2024 tutORial* 

2023 Market Design for Dynamic Pricing and Pooling in Capacitated Networks S. Amin, P. Jalliet, H. Pulyassary, M. Wu, *submitted to Journal of OR* 

#### WORKING PAPERS

2024 Constant-factor distortion mechanisms for k-committee election

H. Pulyassary and C. Swamy

On the Randomized Metric Distortion Conjecture
H. Pulyassary and C. Swamy, unpublished manuscript on the ArXiv.

#### **CONFERENCE & SEMINAR PRESENTATIONS**

2023 Market Design for Dynamic Pricing and Pooling in Capacitated Networks INFORMS 2023 Annual Meeting

INFORMS 2023 Annual Meeting

Network Flow Problems with Electric Vehicles

ORIE Advisory Council meeting (May 2024 - scheduled)
25th Conference on Integer Programming and Combinatorial Optimization (July 2024 - scheduled)
25th International Symposium on Mathematical Programming (July 2024 - scheduled)

### TEACHING EXPERIENCE

## **Teaching Assistant**

SPRING 2024	ORIE 4742 Info Theory, Probabilistic Modeling, and Deep Learning	Cornell University
FALL 2022	ORIE 4350 Introduction to Game Theory	Cornell University
SUMMER 2022	CO 250 Introduction to Optimization - Head TA • Received the Outstanding TA award	University of Waterloo
WINTER 2022	CO 353 Computational Discrete Optimization • Nominated for the Outstanding TA award	University of Waterloo
FALL 2021	CO 255 Introduction to Optimization (Advanced)	University of Waterloo
SUMMER 2021	CO 250 Introduction to Optimization	University of Waterloo

### **INDUSTRY EXPERIENCE**

•	Software and Data Engineering Intern National Bank of Canada
MAY 2018 AUG 2018	Data Science and Solutions Intern ZIGHRA
May 2017 Aug 2017	Data Science Intern ZIGHRA

## OTHER ACTIVITIES

2023-2024	Cornell INFORMS student chapter: Secretary
2023-2024	PhD colloquium & Discrete Optimization Reading Group co-organizer (Cornell ORIE)