

Ravit Pichayavet

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Ravit Pichayavet is a fourth-year Ph.D. student in Supply Chain Engineering at the *H. Milton Stewart School of Industrial and Systems Engineering (ISyE)*. He holds a Bachelor of Engineering in Electrical Engineering from Chulalongkorn University, Bangkok, Thailand. Under the guidance of his primary advisor, Professor Alan Erera, Ravit has been focusing on optimizing logistics operations, with an emphasis on middle-mile and last-mile logistics. His recent research is on shipment resource allocation problems and demand forecasting in collaboration with our industry partner and *Physical Internet Lab*. Ravit's work involves collaboration and advice from Professor Alejandro Toriello and, more recently, Professor Benoit Montreuil.

Research Interests: Planning and operation of logistics and supply chain systems, last-mile logistics and vehicle routing, flow and load planning, resource allocation problem, service network design, optimization

Education

- **Georgia Institute of Technology** **Atlanta, GA, USA**
Ph.D. student in Industrial Engineering with a major in Supply Chain Engineering *Jan 2021 – Present*
 - Cumulative GPA: 3.81
 - Expected graduation: Fall 2025 - Spring 2026
- **Chulalongkorn University** **Bangkok, Thailand**
Bachelor of Engineering in Electrical Engineering *Aug 2015 – July 2019*
 - Major in Electronic and Communication Engineering
 - Cumulative GPA: 3.97/4.00, First Class Honors, Gold Medal (Summa cum laude)

Skills

- **Coursework:** Linear and Discrete Optimization, Logistics and Supply Chain Optimization, Warehouse Management, Production and Service Engineering, Resilient Logistics Network
- **Programming Languages:** Python, C#, C
- **Mathematical/Statistical Tools:** Gurobi, Matlab (m-script and Simulink model)
- **Languages:** Thai (Native), English

Research Experience

- **Graduate Research Assistant** **Georgia Tech, Atlanta, GA**
Michelin North America: Demand Prediction and Shipment Allocation Problem *July 2024 – Present*
 - Analyze demand patterns and formulate a model to help determine how many shipping resources to be reserved
- **Graduate Research Assistant** **Georgia Tech, Atlanta, GA**
UPS: Strategic Flow and Load Planning *July 2022 – Present*
 - Develop a local search heuristic tool for an extremely large-scale flow and load planning problem
- **Graduate Research Assistant** **Georgia Tech, Atlanta, GA**
SF Express: Rate-based Vehicle Routing Problem *July 2021*
 - Consider the intermediate echelon of the city logistic network, where packages are transferred between a local hub to micro hubs or parcel lockers
 - Develop a steady state rate-based vehicle routing model for fleet size and route planning

- **Transportation Institute: Research Assistant** **Chulalongkorn University, Bangkok**
A tour-based model for solving vehicle routing problem with drones *July 2019 – Dec 2020*
 - Develop an exact MIP minimizing the logistic cost of parcel delivery via multiple trucks - multiple drones
 - Implement the solving tool for the MIP in Python using Gurobi solver

Conference

- **INFORMS TSL Second Triennial Conference 2023** **Chicago, IL, USA**
Rate-based Vehicle Routing Problem for Delivery in Densely Populated Urban Areas *July 23 – 26, 2023*
(PDF of slides)

Honors and Awards

- Stewart M. Fellowship, ISyE, Georgia Institute of Technology (2021)
- Day Fellowship, ISyE, Georgia Institute of Technology (2021)
- King Anandamahidol Scholarship for Engineering field awarded to undergrad engineering students who receive the highest academic distinction in Thailand (2019)
- King Bhumibol's Scholarship awarded to engineering student with outstanding academic performance at Chulalongkorn University (2019)
- Certificate of Outstanding Academic Achievement awarded to the top engineering student at Chulalongkorn University (2019)