

# Hailong Sun

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## CONTACT INFORMATION

Institute of Operations Research and Analytics  
National University of Singapore  
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🌐 <https://hl-sun.github.io>  
——— Updated on October 5, 2021 ———

## RESEARCH INTERESTS

Stochastic and Robust Optimization; Data-driven Decision Making; Online Learning and Online Convex Optimization; Pricing Analytics and Revenue Management; Discrete Choice Modeling; Analytics for Social Good

## EDUCATION

**National University of Singapore**, Singapore Aug. 2017 – Jun. 2022 (expected)  
PhD Candidate in Operations Research

- Thesis: “Bundle Design and Pricing: Theory and Applications”
- Advisors: Chung Piaw Teo and Xiaobo Li

**South China University of Technology**, Guangzhou, China Sep. 2014 – Jul. 2017  
M.Eng. in Management Science and Engineering

**Ocean University of China**, Qingdao, China Sep. 2007 – Jun. 2011  
B.Eng. in Environmental Engineering

## JOURNAL PUBLICATIONS

“Convex Optimization for Bundle Size Pricing Problem”, with Xiaobo Li and Chung Piaw Teo. *Management Science*, forthcoming, 2021 [\[link\]](#)  
• Preliminary version: *Proceedings of ACM Conference on Economics and Computation (EC)*, 2020

## WORKING PAPERS

“Product Bundle Recommendation and Pricing: How to Make It Work?”, with Xiaobo Li and Chung Piaw Teo. Under review at *Management Science*, 2021 [\[link\]](#)  
“Robust Capacity Planning and Battery Charging Policy for Electric Vehicle Battery Swap Station”, with Bo Feng and Zuo-Jun Max Shen. Under revision, 2020 [\[link\]](#)

## WORK-IN- PROGRESS

“Airline Fare Family Pricing under Cross Moment Model”, with Changchun Liu, Maoqi Liu and Chung Piaw Teo, 2021  
“A Hybrid Algorithm for Network Revenue Management with Cancellations and No-shows”, with Guodong Lyu and Tingrui Shi, 2021  
“Data-Driven SKU Rationalization for Food Bank Singapore”, with Victor Fernandez, 2021

## WORK EXPERIENCE

**Singapore Airlines**, Singapore Summer 2018  
Revenue Management Intern  
• Developed models and algorithms for fare family pricing and network revenue management.  
**Microsoft (China)**, Guangzhou, China Jan. 2017 – May. 2017  
Online Advertising Intern  
• Worked on a consulting project to build data management platform for an advertisement company.

	<b>HAIWAN Engineering</b> , Qingdao, China Design Engineer	Aug. 2011 – Jul. 2014
	<ul style="list-style-type: none"> <li>Worked on design projects to make layout and logistics planning for chemical and power plant construction.</li> </ul>	
TEACHING EXPERIENCE	<p>Tutor</p> <ul style="list-style-type: none"> <li>IE4211 Modeling and Analytics (undergraduate)</li> </ul> <p>Teaching Assistant</p> <ul style="list-style-type: none"> <li>BDC6248/IE6881 Pricing and Revenue Management (PhD)</li> <li>BDC5101 Deterministic Operations Research Models (MSBA)</li> <li>DAO1704 Decision Analytics using Spreadsheets (undergraduate)</li> </ul>	<p>Spring 2020</p> <p>Fall 2019</p> <p>Spring 2019</p> <p>Fall 2018</p>
CONFERENCE PRESENTATION	<p>Convex Optimization for Bundle Size Pricing Problem</p> <ul style="list-style-type: none"> <li>The 21st ACM Conference on Economics and Computation (EC), online</li> <li>INFORMS Annual Meeting, Seattle</li> <li>Mostly OM Workshop, Shenzhen</li> <li>CSAMSE, online</li> </ul> <p>Bundle Recommendation and Pricing: A Simple Mechanism and Its Optimization</p> <ul style="list-style-type: none"> <li>MSOM Conference, online</li> <li>INFORMS Revenue Management and Pricing Section Conference, online</li> <li>CSAMSE, online</li> </ul>	<p>Jul. 2020</p> <p>Oct. 2019</p> <p>Jun. 2019</p> <p>Jul. 2021</p> <p>Jun. 2021</p> <p>Jun. 2021</p> <p>Jul. 2021</p>
HONORS AND AWARDS	<p>NUS Research Scholarship</p> <p>SCUT Academic Scholarship</p>	<p>2017 – 2021</p> <p>2014 – 2017</p>
COMPUTER SKILLS	Python, R, MATLAB, Gurobi, Mosek, L <sup>A</sup> T <sub>E</sub> X	
REFERENCES	<div> <p><b>Chung Piaw Teo (Advisor)</b> Professor NUS Business School National University of Singapore Email: <a href="mailto:bizteocp@nus.edu.sg">bizteocp@nus.edu.sg</a></p> <p><b>Zizhuo Wang</b> Associate Professor School of Data Science The Chinese University of Hong Kong, Shenzhen Email: <a href="mailto:wangzizhuo@cuhk.edu.cn">wangzizhuo@cuhk.edu.cn</a></p> </div> <div> <p><b>Xiaobo Li (Advisor)</b> Assistant Professor Department of ISEM National University of Singapore Email: <a href="mailto:iselix@nus.edu.sg">iselix@nus.edu.sg</a></p> </div>	