

# YANHAN (SAVANNAH) TANG

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## EDUCATION

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<b>Carnegie Mellon University (Tepper School of Business)</b>	Pittsburgh, USA
PhD in Operations Management, minor in Machine Learning & Statistics	2018.8 - 2024.5 ( <i>Expected</i> )
MS in Operations Management, minor in Optimization	2018.8 - 2021.5
<b>Carnegie Mellon University (School of Computer Science)</b>	Pittsburgh, USA
MS in Machine Learning	2022.1 - 2023.5
<b>Tsinghua University (School of Economics and Management)</b>	Beijing, China
BS in Information Management and Information Systems	2014.9 - 2018.7

## RESEARCH INTERESTS

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Application: Healthcare, financial services, child welfare

Methodology: Machine learning, optimization, reinforcement learning, deep learning

## WORKING PAPERS

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- Multi-Armed Bandits with Endogenous Learning Curves: An Application to Split Liver Transplantation**, 2023. [Link]  
**Yanhan (Savannah) Tang**, Andrew Li, Alan Scheller-Wolf, Sridhar Tayur.  
*Major revision at **Manufacturing & Service Operations Management**.*
  - *Finalist*, 2022 INFORMS Service Science Best Cluster Paper Award
  - *Second place*, POMS-HK 2023 Best Student Paper Competition
  - *Runner-up*, 2023 POMS CSOM Best Student Paper Competition
  - To be presented at MSOM Healthcare SIG 2023
- Split Liver Transplantation: An Analytical Decision Support Model**, 2023. [Link]  
**Yanhan (Savannah) Tang**, Alan Scheller-Wolf, Sridhar Tayur, Emily R. Perito, John P. Roberts.  
*Major revision at **Operations Research**.*
  - Presented at MSOM Healthcare SIG 2022
  - *First place*, 2022 INFORMS DEI Best Student Paper Award
  - *Winner*, INFORMS Public Sector Operations Research 2022 Best Paper Award
  - *Finalist*, 2022 INFORMS IBM Best Student Paper Award Competition
- Efficiency, Fairness and Stability in Peer-to-Peer Ridesharing**, 2020. [Link]  
Hoon Oh\*, **Yanhan (Savannah) Tang\***, Zong Zhang, Alexander Jacquilet, Fei Fang.  
*Available online.*
- When Is It Permissible For Artificial Intelligence To Lie**, 2022. [Link]  
Joy Lu, Tae Wan Kim, Zhaoqi Cheng, **Yanhan (Savannah) Tang**, Kyusong Lee, John Hooker.  
*Reject & Resubmit at **Mind & Machines**.*
  - *Winner*, Society for Business Ethics (SBE) Annual Meeting 2021 Best Paper Award

- *Finalist*, 2021 SBE Best Practical Solutions Award

## WORK IN PROGRESS

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1. A Nested Bayesian Model for Predicting Customer Life-Changing Events Based on Financial Transaction Data, **Yanhan (Savannah) Tang**, Alan Montgomery.  
- To be presented at the *ISMS Marketing Science Conference 2023*
2. The Next Best Offer Algorithm, **Yanhan (Savannah) Tang**, Alan Montgomery.
3. System Load and Human-AI Teaming in Child Welfare Screening, **Yanhan (Savannah) Tang**, Zoey Jiang, Alan Scheller-Wolf, Justine Galbraith, Lindsey Lacey.
4. Split Liver Transplantation Reduces Total Patient Deaths and Improves Fairness, **Yanhan (Savannah) Tang**, Alan Scheller-Wolf, Sridhar Tayur, Emily R. Perito, John P. Roberts.

## TEACHING

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2022 Summer - (Undergrad) Operations Management (Course rating: 4.33/5)			Instructor
<ul style="list-style-type: none"><li>• 100% response rate in faculty course evaluation with a class size of 21. 10% trimmed mean: 4.53.</li><li>• Highest overall course rating for the 18 undergraduate Operations Management courses taught by nine different instructors at CMU during 2020 ~ 2022.</li></ul>			
2021 Summer	(Undergrad) Operations Management	Neda Mirzaeian	Grader
2020 ~ 2022 Falls	(MBA) Operations Management	Sridhar Tayur	TA
2020 Fall	(MBA) New Product Management	Peter Boatwright	Grader
2020 Fall	(MBA) Marketing Management	Peter Boatwright	Grader
2020 Summer	(Undergrad) Operations Management	Mehmet Aydemir	Grader
2020 Spring	(MBA) Strategies in Information Markets	Peter Stuttgen	Grader
2020 Spring	(MBA) Sustainable Operations	Alan Scheller-Wolf	TA

## HONORS AND GRANTS

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<i>Runner-up</i> , 2023 POMS CSOM Best Student Paper Competition	POMS, 2023
<i>Second place</i> , POMS-HK 2023 Best Student Paper Competition	POMS-HK, 2023
<i>First place</i> , Inaugural DEI Best Student Paper Award	INFORMS, 2022
<i>Winner</i> , Public Sector Operations Research 2022 Best Paper Award	INFORMS, 2022
<i>Finalist</i> , IBM Best Student Paper Award Competition	INFORMS, 2022
<i>Finalist</i> , Service Science Best Cluster Paper Award	INFORMS, 2022
Litzenberger Family Fund	Tepper, 2022
PNC Presidential Fellowship	Tepper, 2022
PNC Center for Financial Services Innovation Fellowship	CMU, 2021 ~ 2023
Dean's Research Funding	Tepper, 2021
<i>Winner</i> , Society for Business Ethics Annual Meeting Best Paper Award	SBE, 2021
<i>Finalist</i> , Society for Business Ethics Best Practical Solutions Award	SBE, 2021
Health Care Initiative Funding	Tepper, 2020 ~ 2021
Graduate Student Assembly/Provost Conference Funds	CMU, 2020 & 2022
Graduate Crosswalk GuSH Grant (Co-PI)	CMU, 2019 ~ 2020
William Larimer Mellon Fellowship	CMU, 2018 ~ 2023

## PROFESSIONAL SERVICES

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Co-chair, 2023 INFORMS PSOR Best Paper Award	2023
Judge, 2023 INFORMS Service Science Section Best DEIJ Paper Award	2023
Session co-chair, 2023 INFORMS Healthcare Conference & 2023 INFORMS Annual Meeting	2023

Advisor, MBA/MSBA capstone projects	2021 ~ 2023
Student liaison, Health Analysis Society (HAS) of INFORMS	2021 ~ 2022
Treasurer, CMU-INFORMS Student Chapter, Tepper School of Business	2019 ~ 2020
Co-organizer, CMU INFORMS YinzOR Student Conferences	2019 ~ 2022

## GRADUATE COURSEWORK

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Economics:	Microeconomics, General equilibrium, Game theory, Structural models
Optimization:	Linear programming, Dynamic programming, Integer programming, Graph theory, Convex optimization theory, Convex polyhedra, Advanced graph theory, Networks
Operations:	OM foundations, Healthcare ops, Empirical OM research, Energy merchant ops
Probability:	Queueing theory, Adv. stochastic models, Strategic queueing models
ML & Stats:	Introduction to ML, Adv, deep learning, Deep reinforcement learning, Intermediate stats, Bayesian statistics, Probability graphical models, ML in practice, Convex optimization

## SKILLS AND OTHERS

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Programming Language: Python, Julia, SAS, SQL, R  
 Language: Mandarin (native), English (fluent)  
 Hobby: Badminton, pool, squash, table tennis, piano