# YANHAN (SAVANNAH) TANG

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#### **EDUCATION**

Carnegie Mellon University (Tepper School of Business)

PhD in Operations Management, minor in Machine Learning & Statistics

MS in Operations Management, minor in Optimization

Carnegie Mellon University (School of Computer Science)

MS in Machine Learning

Pittsburgh, USA

2018.8 - 2024.5 (Expected)

Pittsburgh, USA

2018.8 - 2021.5

Pittsburgh, USA

2022.1 - 2023.5

Tsinghua University (School of Economics and Management)

Beijing, China

2014.9 - 2018.7

#### RESEARCH INTERESTS

Application: Healthcare, financial services, child protection

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

#### WORKING PAPERS

 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 M&SOM.

- 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
- 2. 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
- 3. Efficiency, Fairness and Stability in Peer-to-Peer Ridesharing, 2020. [Link] Hoon Oh\*, Yanhan (Savannah) Tang\*, Zong Zhang, Alexander Jacquilet, Fei Fang. Available online.
- 4. 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

## WORK IN PROGRESS

- 1. A Nested Bayesian Model for Predicting Customer Life-Changing Events Based on Financial Transaction Data, **Yanhan (Savannah) Tang**, Alan Montgomery.
- 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**

2022 Summer - (Undergrad) Operations Management (Course rating: 4.33/5)

Instructor

- 100% response rate in faculty course evaluation with a class size of 21. 10% trimmed mean: 4.53.
- Highest overall course rating for the 18 undergraduate Operations Management courses taught by nine different instructors at CMU in the last three years

2021 Summer	(Undergrad) Operations Management	Neda Mirzaeian	$\operatorname{Grader}$
$2020 \sim 2022$ Falls	(MBA) Operations Management	Sridhar Tayur	TA
2020 Fall	(MBA) New Product Management	Peter Boatwright	Grader
2020 Fall	(MBA) Marketing Management	Peter Boatwright	$\operatorname{Grader}$
2020 Summer	(Undergrad) Operations Management	Mehmet Aydemir	$\operatorname{Grader}$
2020 Spring	(MBA) Strategies in Information Markets	Peter Stuttgen	$\operatorname{Grader}$
2020 Spring	(MBA) Sustainable Operations	Alan Scheller-Wolf	TA

### HONORS AND GRANTS

Runner-up, 2023 POMS CSOM Best Student Paper Competition	POMS, 2023
Second place, POMS-HK 2023 Best Student Paper Competition	POMS-HK, 2023
First place, Inaugural DEI Best Student Paper Award	INFORMS, 2022
Winner, Public Sector Operations Research 2022 Best Paper Award	INFORMS, $2022$
Finalist, IBM Best Student Paper Award Competition	INFORMS, 2022
Finalist, 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, $2021 \sim 2023$
Dean's Research Funding	Tepper, 2021
Winner, Society for Business Ethics Annual Meeting Best Paper Award	SBE, 2021
Finalist, Society for Business Ethics Best Practical Solutions Award	SBE, 2021
Health Care Initiative Funding.	Tepper, $2020 \sim 2021$
Graduate Student Assembly/Provost Conference Funds	CMU, 2020 & 2022
Graduate Crosswalk GuSH Grant (Co-PI)	CMU, $2019 \sim 2020$
William Larimer Mellon Fellowship	CMU, $2018 \sim 2023$

## PROFESSIONAL SERVICES

Co-chair for the 2023 INFORMS PSOR Best Paper Award	1 2023
Advisor for MBA/MSBA capstone projects	$2021 \sim 2023$
Student Liaison for the Health Analysis Society (HAS) of	INFORMS $2021 \sim 2022$
Treasurer for CMU-INFORMS student chapter, Tepper Sc	chool of Business $2019 \sim 2020$
Co-organizer of CMU INFORMS YinzOR Student Conference	ences $2019 \sim 2022$

## GRADUATE COURSEWORK

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

Programming Language: Python, Julia, SAS, SQL, R

Language: Mandarin (native), English (fluent)

Hobbies: Badminton, pool, squash, table tennis, piano