YANHAN (SAVANNAH) TANG

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EDUCATION

Carnegie Mellon University (Tepper School of Business) — Pittsburgh, USA
PhD in Operations Management, minor in Machine Learning & Statistics — *2018.8 - 2024.5 (Expected)*
MS in Operations Management, minor in Optimization — *2018.8 - 2021.5*

Carnegie Mellon University (School of Computer Science) — Pittsburgh, USA
MS in Machine Learning — *2022.1 - 2023.5 (Expected)*

Tsinghua University (School of Economics and Management) — Beijing, China
BS in Information Management and Information Systems — *2014.9 - 2018.7*

RESEARCH INTERESTS

Application: Healthcare, financial services, child protection
Methodology: Machine learning, optimization, reinforcement learning, deep learning

WORKING PAPERS

1. **Multi-Armed Bandits with Endogenous Learning and Queueing: An Application to Split Liver Transplantation**, 2022. [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

2. **Split Liver Transplantation: An Analytical Decision Support Model**, 2022. [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 (Acceptance rate: 16%)

   - *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

   - *Finalist*, 2021 SBE Best Practical Solutions Award

WORK IN PROGRESS

1. A Hierarchical 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. Human-AI Teaming in Screening Child Abuse Reports, **Yanhan (Savannah) Tang**, Zoey Jiang, Alan Scheller-Wolf.

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	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

Second place, POMS-HK 2023 Best Student Paper Competition	POMS-HK, 2022
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 ∼ 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 ∼ 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

Primary Advisor for MSBA Capstone Project - Multivariate Analysis	2022
Student Liaison for the Health Analysis Society (HAS) of INFORMS	2021 ∼ 2022
Treasurer for CMU-INFORMS student chapter, Tepper School of Business	2019 ∼ 2020
Co-organizer of CMU INFORMS YinzOR Student Conferences	2019 ∼ 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: Table tennis, badminton, pool, piano