Tan Hong Ming

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▬▬▬ Research Papers and Published Works

Accepted	**Evaluation of a new antiresistic strategy to manage antibiotic resistance**, *Hong Ming Tan, Ambika C. Lall, Jussi Keppo, Swaine L. Chen (2023)*, Journal of Global Antimicrobial Resistance
Published Chapter	**The Case Method and Technology: Applying the Seven Principles for Good Practice in Undergraduate Education in a Business School Course**, *Tan, H. M. (2023)*, Designing Technology-Mediated Case Learning in Higher Education: A Global Perspective (pp. 17-31). Singapore: Springer Nature Singapore.
Published	**A modification to Pull the Goalie that takes into account the state of play: Coach Markov returns**, *Zaman, Z. and Tan, H. M. (2020)*, CHANCE, 33(1), 10-15
Working Paper	**Risky Investments under Static and Dynamic Information Acquisition**, *Keppo, Jussi and Tan, Hong Ming and Zhou, Chao*, `https://ssrn.com/abstract=3141043`
Working Paper	**Calibrating Airline Sales Forecast in Volatile Environments: Changepoint Detection and Applications**, *Changchun, Liu and Hong Ming, Tan and Ek Hong, Lim and Chung-Piaw, Teo*
Working Paper	**Evidence-Based Pilot Training and Grading in the Airline Industry: A Multi-Level, Dynamic Analysis**, *Qingyin Ge, Jussi Keppo, Chuan Hoo Tan, Hong Ming Tan*
Working Paper	**Dynamic Pricing in the Airline Industry: Theory and Practice**, *Chung Khim Lae, Hong Ming Tan, Bar Light, Jussi Keppo*
Work-in-progress	**Investigating the Value of a Clustering Approach to the Self-Referential Encoding Task in Predicting Depression and Cognitive Vulnerabilities**, *With Institute of Mental Health*
Work-in-progress	**The use of an XGBoost algorithm to examine the relative predictive value of data from a Self-Referential Task and self-reported vulnerability factors for Depression Screening**, *With Institute of Mental Health*
Work-in-progress	**Examining the Clinical Utility of a Machine Learning Approach to Predict Depression from the Self-Referential Encoding Task and Cognitive Vulnerability Factors**, *With Institute of Mental Health*

▬▬▬ Work Experience

2021–Present **Lecturer**, *Department of Analytics and Operations*, NUS Business School, National University of Singapore
- Chair of Department Finance Committee
- Member of Department Teaching Committee
- DAO1704 Decision Analytics Using Spreadsheets
  - Module Coordinator and Instructor, leading a team of four to six instructors including Professors and PhD students
  - Awarded SGD50,000 to redevelop module for Blended Learning 2.0
- Faculty for Executive Education: Leading with Big Data Analytics and Machine Learning
- Pioneered the Teaching Training Program for PhD students
- Faculty for Practical Decision Making Using Data Science Online Executive Education course by Great Learning
- Advisor for Business Analytics Consulting Team
- Advisor for NUS Private Equity Society

2021–Present **Research Fellow**, *Institute of Operations Research and Analytics*, National University of Singapore
- Co-PI: AI-led Smart Data Centre Management Application (Grant SGD330,000)
- SIA-NUS Corp Lab
  - Project Manager for Transforming Competency and Skill Development (leading team of 3 PhD students and multiple Research Assistants)
- Collaborator of SGD1,000,000 grant with Institute of Mental Health on Screening and Invervention of Depression (helps manage team of interns involved with Machine Learning)
- Project Manager for Multiple Industry Projects with leading Global Medical Device Company (Non-Disclosure Agreement)
  - Quality Control
  - Text Analytics
  - Manages team of Research Assistants
- NUS GRIP Venture Hothouse participant getting guidance on launching own startup as CEO

2020–Present **Programme Leader**, *Emeritus Institute of Management*
- Business Analytics for Strategic Decisions
- Python for Analytics

2017–2021 **PhD Candidate**, *Institute of Operations Research and Analytics*, National University of Singapore
- Lead for Field Studies of Pilot training Project for a Major Airline Carrier
- Lead for Demand Modeling and Price Optimization Project for a Major Airline Carrier
- Lead for Forecasting Possible Quality Issues and Optimal Responses to the Forecasts for a Leading Global Medical Device Company
- Instructor for DSC5101 Analytics in Managerial Economics
- Instructor for Executive Education: Leading with Big Data Analytics and Machine Learning
- Teaching Assistant for DSC5101 Analytics in Managerial Economics
- Tutor for DAO1704/DSC1007 Decision Analytics Using Spreadsheets
- Outstanding Graduate Student Teaching Award
- MSOM 2019 Conference and SIG Meeting Local Organising Committee
- Analytics for X Conference 2021 Local Organising Committee

2015–2017 **Graduate Research Student**, *Department of Mathematics*, Faculty of Science, National University of Singapore
- Completed Training Programme for Teaching Assistants
- Tutor for MA1505 Mathematics I
- Tutor for MA1101R Linear Algebra I
- Achieved top 20% of all graduate tutors in teaching performance

2013–2015 **Lecturer**, *Mathematics and Statistics Division*, Temasek Polytechnic
- Collaborated with NUS Pharmaceutical Science to create interactive webpages using HTML5 elements and Javascript
- Co-authored three textbooks
- Coordinated Online Student Evaluation of Teaching Effectiveness system for the School of Applied Science
- Subject Leader for the subject "Statistics for Applied Science"
- Completed Teaching in Higher Education Certificate
- Completed Data Analytics in Healthcare course
- Completed WSQ 3D Printing for Rapid Product Development course

2009 **Administrative Assistant**, *Office of Undergraduate Programmes*, NUS Faculty of Engineering
- Organizing Committee of Fourteenth National Undergraduate Research Opportunities Programme 2009
- Coordinated Industrial Attachment and Vacation Internship Programme
- Assisted with Student Exchange Programme

2008 **Defensive Computer Warfare/Information Assurance Platoon Commander**, *18C4 Unit*, Singapore Armed Forces, Lieutenant
- Managed and oversee the integrity of SAF's computer and network security
- Coordinated the audit of Top Secret and Secret classified documents for all SAF Joint forces

Awards

2019 **National University of Singapore**, *Department of Analytics and Operations*, Outstanding Graduate Student Teaching Award

2017 **National University of Singapore**, *Department of Mathematics*, Graduate Programme in Mathematics by Research, Letter of Commendation for Graduate Tutor

2004 **Singapore Mathematical Olympiads**, *Senior Section*, *Bronze Award*

Academic Qualifications

2017–2021 **Ph.D. in Operations Research and Analytics**, *Institute of Operations Research and Analytics*, National University of Singapore

2015–2017 **Master of Science by Research**, *Department of Mathematics*, Faculty of Science, National University of Singapore
- Graduate Programme in Mathematics by Research
- Thesis Title: Investment and the Quantity of Data Analytics

2009–2013 **Bachelor of Science(Hons)**, *National University of Singapore*, Second Class Honours, Upper Division
- Applied Mathematics (Primary Major)
- Economics (Second Major)
- CAP 4.29/5