
Research Papers and Published Works

- Accepted **Comparing feature selection and machine learning approaches for predicting CYP2D6 methylation from genetic variation**, Wei Jing Fong, Hong Ming Tan, Rishabh Garg, Hong Pan, Varsha Gupta, Bernardus Krishna, Zuo Hui Chen, Natania Yovela Purwanto, Fabian Yap, Kok Hian Tan, Jerry, Kok Yen Chan, Shiao-Yng Chan, Nicole Goh, Nikita Rane, Mei Han, Michael J Meaney, Dennis Wang, Jussi Keppo, and Geoffrey Chern-Yee Tan (2023), *Frontiers in Neuroinformatics*
- Published **Evaluation of a New Antiresistive Strategy to Manage Antibiotic Resistance**, Hong Ming Tan, Ambika C. Lall, Jussi Keppo, Swaine L. Chen (2023), *Journal of Global Antimicrobial Resistance*, Volume 33, 2023, Pages 368-375, ISSN 2213-7165
- 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 **Fare Ladder Optimization: Airline Revenue Management in Volatile Environment**, Changchun Liu, Hong Ming Tan, Chung-Piaw Teo, Gang Guo, Yan Chen, Tim Lee
2023 CSAMSE Practice Award Finalist
- Working Paper **Flying High with Improved Data: How an Instructor Training Workshop Boosting Pilot Competency Assessment**, 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
- Working Paper **Data Science Approach to Process Control**, Yuda Ho, Jussi Keppo, Ek Hong Lim, Herman Tan, and Hong Ming Tan
- Working Paper **Investigating the Value of a Clustering Approach to the Self-Referential Encoding Task in Identifying Subtypes of Depression**, Geoffrey Chern-Yee Tan, Ziyang Wang, Rachel, Jing Min Ong, Danan Lee, Nikita Rane, Sheryl, Yu Xian Tey, Si Ying Chua, Nicole, Shu En Goh, Glynis, Weibin Lam, Atlanta Chakraborty, Anthony, Khye Loong Yew, Sin Kee Ong, Jin Lin Kee, Xin Ying Lim, Nawal Hashim, Sharon Huixian Lu, Michael J Meaney, Serenella Tolomeo, Christopher L. Asplund, Hong Ming Tan, and Jussi Keppo
- Working Paper **Fast Data Valuation In Deep Learning**, Ayush Kumar Tarun, Bowei Chen, Hong Ming Tan, Vikram Singh Chundawat, Mohan Kankanhalli, Murari Mandal

Work Experience

- 2023–Present **Lead AI Advisor, XOPA AI**
- Work with CEO and co-founders on company AI strategy and focus
 - Advise and lead team of Data Scientists
 - Invited speaker for webinar on the use of AI in recruitment, hosted by APSCo Asia

- 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
 - Faculty in MBA and EMBA programmes
 - 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 Intervention 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 **Visiting Research Student**, *Institute for Data, Systems, and Society*, Massachusetts Institute of Technology
- 2020–2023 **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