

# Jingyi Kenneth Tay

## Curriculum Vitae

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## Education

2016–Present **Ph.D. Candidate in Statistics**, *Stanford University*, Stanford, CA.

2016–2019 **M.S. in Statistics**, *Stanford University*, Stanford, CA.

2006–2010 **A.B. in Mathematics**, *Princeton University*, Princeton, NJ.

Summa Cum Laude. Certificates in Program of Applied & Computational Mathematics, Program of Finance.

2004–2005 **GCE 'A' Levels**, *Anglo-Chinese Junior College*, Singapore, 4 As, 2 Special Paper Distinctions.

## Research

### Preprints and Papers Under Review

1. J. K. Tay, J. Friedman, and R. Tibshirani. (2018). Principal component-guided sparse regression. *arXiv:1810.04651v2 [stat.ME]*, 2018. URL <https://arxiv.org/abs/1810.04651>. R code <https://CRAN.R-project.org/package=pcLasso>.
2. J. K. Tay, and R. Tibshirani. (2018). A latent factor approach for prediction from multiple assays. *arXiv:1807.05675 [stat.ME]*, 2018. URL <https://arxiv.org/abs/1807.05675>.

### Theses and Dissertations

1. J. K. Tay. (2010). Maximizing expected logarithmic utility in a regime-switching model with inside information. Senior Thesis. Advisor: Ramon van Handel.
2. J. K. Tay. (2009). Construction of space-time block codes from a decoding point of view. Junior Independent Work. Advisor: Robert Calderbank.

## Teaching

### Course Instructor

Autumn 2018-19	STATS 32, Introduction to R for Undergraduates	Stanford University
Summer 2017-18	STATS 302, Qualifying Exams Workshop (Applied Statistics).	Stanford University
Autumn 2017-18	STATS 32, Introduction to R for Undergraduates	Stanford University

## Teaching Assistant

Winter 2018-19	STATS 191, Introduction to Applied Statistics	Stanford University
Summer 2017-18	STATS 216V, Introduction to Statistical Learning	Stanford University
Spring 2017-18	STATS 305C, Methods for Applied Statistics II: Applied Multivariate Statistics	Stanford University
Winter 2017-18	STATS 216, Introduction to Statistical Learning	Stanford University
Summer 2016-17	STATS 116, Theory of Probability	Stanford University
Summer 2016-17	STATS 290, Paradigms for Computing with Data	Stanford University
Autumn 2016-17	STATS 116, Theory of Probability	Stanford University

## Work Experience

- 10/2015–08/2016 **Data Scientist (Data Science Division)**, *Infocomm Development Authority of Singapore*, Singapore.
- o Spearheaded engagements with a wide array of government agencies (economic, transport, social) to analyze their data to support public policymaking. Responsibilities included project scoping, data cleaning, visualization, statistical analysis and presentation of results.
  - o Systematized and tested recruitment framework and materials for all roles in the division, including data scientist, quantitative strategist and front-end developer.
  - o Developed division's operating policy for data management and statistical disclosure control.
- 04/2014–03/2015 **Staff Well-Being Committee Chair**, *Ministry of the Environment & Water Resources*, Singapore.
- o Led team of 10 officers in conceptualizing and executing activities to improve staff welfare and morale.
  - o Managed and accounted for budget (20K+) for staff welfare.
- 09/2013–09/2015 **Assistant Director (Environmental Policy Division)**, *Ministry of the Environment & Water Resources*, Singapore.
- o Drove progressive policies to ensure sustainability and efficiency of Singapore's waste management system.
  - o Facilitated Ministry's strategic planning by conceptualizing and organizing Policy Wing retreat.
  - o Evaluated usefulness of movement data in predicting spread of *Chikungunya* virus in Singapore.

- 04/2012– **InfoComm Technologies Engineer**, *Ministry of Defense*, Singapore.
- 08/2013
- o Evaluated operational performance of critical communications systems.
  - o Made operational effectiveness more transparent by developing and implementing a new reporting dashboard for senior management.
  - o Strengthened in-house user adoption of systems through crafting and delivering technical presentations.

## Awards and Honors

- 2019 Honorable Mention, American Statistical Association's Statistical Learning and Data Science Student Paper Competition.
- 2017, 2018 Departmental Teaching Assistant Award.
- 2017 Two Sigma Graduate Fellowship in Statistics.
- 2010 Election to Sigma Xi Honor Society.
- 2009 Early Induction to Phi Beta Kappa Honor Society (top 1% of cohort).
- 2007, 2008 Shapiro Prize for Academic Excellence, Princeton University.
- 2007 Second Prize, International Mathematics Competition.
- 2006, 2008 Honorable Mention, William Lowell Putnam Competition.
- 2006-2010 Public Service Commission Overseas Merit Scholarship (Open) (full-ride college scholarship), Public Service Commission, Singapore.
- 2006 Lee Kuan Yew Award for Mathematics & Science, Ministry of Education, Singapore.
- 2005 Gold Award (top score), Asian-Pacific Mathematical Olympiad.
- 2004, 2005 Silver Medal, International Mathematical Olympiad.
- 2003 Honorable Mention, International Mathematical Olympiad.