Yuchen Wang

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Education

2016-2020   **Massachusetts Institute of Technology,** Cambridge, MA
(Expected)   Candidate for Ph.D. in Operations Research; GPA: 5.0/5.0
Selected Course Work:
Optimization: Linear Optimization: A, Nonlinear Opt: A+, Robust Opt: A
Machine Learning: Probability: A+, Statistical Learning: A, Analytics Edge: A+
Advisor: Prof. Dimitris Bertsimas

2012-2016   **Peking University,** Beijing, China
BS, major in Mathematics and minor in Economics, June 2016.
Graduated Summa Cum Laude

Work Experience

2019   **Facebook Research,** Menlo Park, CA
(Summer）   Research Intern
Work on Algorithmic Game Theory in Core Data Science team.

Research Experience

2015–   **MIT Operations Research Center,** Cambridge, MA
Advisor: Prof. Dimitris Bertsimas
Developing interpretable machine learning algorithm using optimizations, mainly on optimal decision trees and optimal clustering method. Working on applications in transplantation and pediatrics.

2015   **Massachusetts Institute of Technology,** Cambridge, MA
Advisor: Prof. Hui Chen
We worked on the option pricing of China's stock European options using binomial price tree which helped to model T+1 mechanism and no-short selling policy.

Teaching Experience

2018   **Massachusetts Institute of Technology**, Cambridge, MA
Teaching Assistant for Machine Learning Under a Modern Optimization Lens
Conducted weekly recitations about machine learning and optimization for 60 students, created and graded six problem sets and midterms. Graded final project.

2017   **Massachusetts Institute of Technology**, Cambridge, MA
Teaching Assistant for 15.089: The Analytics Capstone

Mentored four Masters of Business Analytics from Sloan School of Business to do projects with McKinsey & Company. The topics are about the spatiotemporal analysis of industrial agglomeration and extract named topics from unlabeled text.

Publications

" Development and validation of an Optimized Prediction of Mortality (OPOM) for candidates awaiting liver transplantation" with D. Bertsimas, J. Kung, N. Trichakis, R. Hirose, P. Vagefi, 2018, American Journal of Transplantation.

" Building on Success: Improving the PECARN Head Trauma Rules With Optimal Classification Trees" with D. Bertsimas, J. Dunn, S.Dale, T. Trikalinos, 2019, JAMA Pediatrics.

" Optimal Nonlinear Trees for Predictions" with D. Bertsimas and J. Dunn, submitted to Machine Learning.

" Visualizing tradeoffs in liver transplantation: the benefits of a continuous distribution model and its implications for national policy development " with D. Bertsimas, T. Papalexopoulos, N. Trichakis and P. Vagefi, submitted to Transplanation.

" South American oil export destination choice, a machine learning approach " with Haiying Jia, Roar Adland, submitted to The Energy Journal.

Honors and Awards

2016   Outstanding Graduate Award, Peking University
2015   Canon Scholarship
2014   Champion of KPMG Accounting Case Competition in Peking University
2014   Meritorious Winner of US Interdisciplinary Contest in Modeling (ICM)
2013   May Fourth Scholarship of Peking University
2012   Gold Medal in 2012 Chinese Mathematical Olympiad(CMO)

Skills and Interests

Programming: Python, Julia, C/C++, MATLAB
Math/stats/optimization: R, Gurobi, Mathematica
*Interests***:** Go (5 Duan), Swimming, Table-tennis