

Ying Daisy Zhuo

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EDUCATION

Massachusetts Institute of Technology

Cambridge, MA

Ph.D. candidate, Operations Research, Analytics Track

May 2018 (Expected)

GPA: 5.00/5.00

Advisor: Dimitris Bertsimas, Ph.D.

Topics: Machine learning and Optimization; predictive and prescriptive health analytics

Middlebury College

Middlebury, VT

B.A., Mathematics and Economics

May 2012

GPA: $3.97/4.00,\,\mathrm{Salutatorian},\,\mathrm{Phi}$ Beta Kappa Prize, Dr. Francis D. Parker Mathematics

Prize, D.K. Smith Economics Prize, Christian A. Johnson Prize in Economics

EXPERIENCE Analysis Group, Inc.

Boston MA

Analyst

July 2012 to May 2014

- Conducted Bayesian network meta-analyses synthesizing the evidence from published clinical trials to compare efficacy and safety across a network of treatment options
- Built cost-effectiveness Monte Carlo simulation models or Markov chain models in disease areas such as HIV, deep vein thrombosis, and multiple myeloma
- Developed and instructed the programming language R training course for 200+ employees across two offices, enabling managers and associates to conduct more efficient data analysis and build more advanced models

Warwick Business School

University of Warwick, UK

Research Fellow in Data Science

May to August 2014

- Topic: Describing and understanding human behavior using Internet data
- Project 1: Use Bayesian hierarchical models to predict crime in the United Kingdom with crowd-sourced data
- Project 2: Quantify the diversity of financial news and its relationship with the financial market

Programming

R ★★★★★ SAS ★★★★☆ Python ★★★☆☆
SQL ★★★★☆

Matlab ★★★☆☆ Java ★★☆☆☆

Additional

Foreign languages: Mandarin (native), Japanese (proficient)

Design software: Adobe Photoshop (expert), Adobe Illustrator (proficient)

Leadership experience:

• Officer for INFORMS Student Chapter at MIT

• Participated at Brigham and Women's Hospital hackathon on women's mental health

• Energy modeling lead at Solar Decathlon competition

PUBLISHED
PAPERS AND
CONFERENCE
ABSTRACTS

- 1. Bertsimas, D., Kallus, N., Weinstein, A., **Zhuo, Y.D.** "Personalized diabetes management". Presented at *American Diabetes Association 76th Scientific Sessions*, 2016.
- Bertsimas, D., Dunn, J., Pawlowski, C., Zhuo, Y.D. "Robust classification". Presented at INFORMS Annual Meeting, 2015.
- 3. Freemantle, N., Chou, E., Frois C., **Zhuo, D.**, Lehmacher, W., Vlajnic A., Wang, H., Chung, H., Zhang, Q., Wu, E., Gerrits, C. "Safety and efficacy of insulin glargine 300u/mL compared with other basal insulin therapies in patients with type 2 diabetes mellitus: a network meta-analysis." *BMJ Open*, 2016;6:e009421.
- Sweet, D.E., Zhuo, D., Macalalad, A.R., and Signorovitch, J. "Cost-effectiveness of single versus multiple tablet regimens for treatment of HIV-1 infection." To be presented at *International Society For Pharmacoeconomics and Outcomes Research*, 2014.
- 5. Sweet, D.E., Zhuo, D., Zhong, Y., and Signorovitch, J. "Real-world adherence among patients receiving single versus multiple tablet regimens for HIV-1 infection, and associations between adherence and viral suppression: a systematic literature review and meta-analysis." To be presented at *International AIDS Society*, 2014.
- Mody, S.H., Huynh, L., Zhuo, D., Tran, K.N., Lefebvre, P., Bookhart, B.K.. "A cost-analysis model for anticoagulant treatment in the hospital setting." To appear in *Journal of Medical Economics*, 2014.
- Lefebvre, P., Coleman, C.I., Bookhart, B.K., Wang, S.T., Mody, S.H., Tran, K.N.,
 Zhuo, D., Huynh, L., and Nutescu, E.A.. "Cost-effectiveness of rivaroxaban compared with enoxaparin plus a vitamin K antagonist for the treatment of venous thromboembolism." Journal of Medical Economics, Nov 14, 2013.
- 8. Dickerson, M.T., Goodrich, M.T., Dickerson, T.D., and **Zhuo, D.**. "Round-trip Voronoi diagrams and doubling density in geographic networks." *Transactions on Computational Science* 14: 211-238, 2011.

Submitted Papers

- 1. Bertsimas, D., Dunn, J., Pawlowski, C., **Zhuo, Y.D.** "Robust classification". (Submitted for publication), 2016.
- Bertsimas, D., Kallus, N., Weinstein, A., Zhuo, Y.D. "Personalized diabetes management using electronic medical records". (Submitted for publication), 2016.
- 3. Curme, C., **Zhuo, D.**, Moat, H.S., and Preis, T. (Submitted for publication). "The role of diversity in financial news." 2016.