Jongbin **Jung**

Data Scientist · Quantitative Analyst · Software Engineer

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Education

Stanford University, Management Science and Engineering — *Stanford, California*
Ph.D. Candidate in Decision Analysis and Computational Social Science — *2014 — Present*

Yonsei School of Business — *Seoul, South Korea*
M.S. in Operations Research — *2011 — 2014*

Yonsei School of Business — *Seoul, South Korea*
B.A. in Business Administration (Minor in Computer Science) — *2005 — 2011*

Skills

	Data Analytics, Decision/Risk Analysis, Causal Inference, Optimization, Probabilistic Modeling
Programming	R, Python, Go, C/C++, Julia, MATLAB, Java, and more
Languages	Fluent in English and Korean

Research Projects

Bayesian sensitivity analysis for offline policy evaluation — *Jul. 2016 - Present*

- Proposed a Bayesian method for measuring sensitivity of heterogeneous treatment effect estimates to ignorability assumptions
- Methods were implemented using R and `Stan`

Interpretable Heuristics for Policy Decisions — *Jul. 2014 - Jul. 2016*

- Designed and tested a heuristic for pretrial release that would let the district attorney's office detain half as many defendants, while maintaining status quo rate of failure-to-appear
- Heuristics –in the form of score cards– were derived from predictive models trained and tested using R and `Python`

Investment Portfolio Optimization — *Mar. 2011 - Jun. 2014*

- Collaborated with a group of experts in finance and optimization to develop practical, data-driven investment tools

Experience

Google — *Mountain View, California*
Quantitative Analyst Intern — *Jun. 2017 — Sep. 2017*

- Analyzed the effectiveness of multiple strategies for predicting long-term effects using short-term metrics from online experiment

Stanford University (in collaboration with PG&E) — *Stanford, California*
Research Assistant — *Oct. 2016 — Mar. 2017*

- Built machine learning tools using geo-spacial sensor data to improve detection of potential gas leaks

Google — *Mountain View, California*
Quantitative Analyst Intern — *Jun. 2016 — Sep. 2016*

- Achieved up to 3% increase in recommendation CTR in experiments by streamlining content recommendation scoring models

International Affairs Office, Yonsei School of Business — *South Korea*
Database Management and IT Support — *Apr. 2011 — Apr. 2014*

- Reduced accreditation turnaround time from months to days by designing and implementing a department-wide database system

The E-land Group — *China*
Intern Consultant — *Jul. 2010 — Sep. 2010*

- Developed strategies for penetration, marketing, and operations in the Chinese beverage market (Beijing and Shanghai)

TWisT (Project group) — *South Korea*
Software Engineer — *Sep. 2009 — Dec. 2009*

- Built and maintained custom hardware/software interface libraries for a prototype path-finding drone in C++

Aviation Command Center, R.O.K. Army — *South Korea*
Sergeant, Ground Transportation Division (Compulsory Military Service) — *May. 2007 — Apr. 2009*

- Managed supply chain for war-time deployment of special purpose equipment

Teaching

R and python crash courses, MS&E — *Stanford, California*
INSTRUCTOR — *Jan. 2016 — Present*

- Offering two-day crash courses each quarter for non-technical Stanford graduate students, teaching R basics, data manipulation, visualization, statistical modeling, and python programming for data science

Computational Social Science Workshop at Stanford — *Stanford, California*
INSTRUCTOR — *Sep. 2015*

- Instructed two-day workshop teaching data collection and manipulation in python

Data Science Tutorial — *Stanford, California*
INSTRUCTOR — *Apr. 2015*

- Offered introductory tutorials to data manipulation with R and web scraping with python

Stanford, Management Science and Engineering — *Stanford, California*
COURSE ASSISTANT — *Jan. 2015 to Present*

- Course assistant for courses at Stanford: MS&E 125 (Applied Statistics), MS&E 211 (Linear & Nonlinear Optimization), MS&E 231 (Computational Social Science), MS&E 252 (Foundations of Decision Analysis), MS&E 330 (Law, Order, and Algorithms), and MS&E 352 (Professional Decision Analysis)

Stanford Data Science Drop-in — *Stanford, California*
VOLUNTEER CONSULTANT — *Sep. 2014 — Apr. 2015*

- Available weekly to Stanford graduate students for consultation regarding quantitative research and analysis methods

Publications (selected)

- *Simple Rules for Complex Decisions*
  Jongbin Jung, Connor Concannon, Ravi Shroff, Sharad Goel, and Daniel G. Goldstein
  arXiv prepint arXiv:1702.04690. *(2017)* Under review
- *Creating Simple Rules for Complex Decisions*
  Jongbin Jung, Connor Concannon, Ravi Shroff, Sharad Goel, and Daniel G. Goldstein
  Harvard Business Review. *(Apr. 19, 2017)* https://hbr.org/2017/04/creating-simple-rules-for-complex-decisions
- *Developing a dynamic portfolio selection model with a self-adjusted rebalancing method*
  Jongbin Jung and Seongmoon Kim
  Journal of the Operational Research Society. *(2017)* Vol. 68., No. 7., pp. 766–779
- *An adaptively managed dynamic portfolio selection model using a time-varying investment target according to the market forecast*
  Jongbin Jung and Seongmoon Kim
  Journal of the Operational Research Society. *(2015)* Vol. 66., No. 7., pp. 1115–1131