

# Jongbin Jung

DECISION/RISK ANALYST · DATA SCIENTIST · SOFTWARE ENGINEER

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## Education

### Stanford University, Management Science and Engineering

PH.D. CANDIDATE IN DECISION ANALYSIS AND COMPUTATIONAL SOCIAL SCIENCE

Stanford, California

2014 — Present

### Yonsei School of Business

M.S. IN OPERATIONS RESEARCH

Seoul, South Korea

2011 — 2014

### Yonsei School of Business

B.A. IN BUSINESS ADMINISTRATION (MINOR IN COMPUTER SCIENCE)

Seoul, South Korea

2005 — 2011

## Skills

Decision/Risk Analysis, Optimization, Probabilistic Modeling

**Programming** Python, R, Go, C/C++, Julia, MATLAB, Java, and more

**Languages** Fluent in English and Korean

## Experience

### Google

QUANTITATIVE ANALYST INTERN

Mountain View, California

Jun. 2016 — Sep. 2016

- Helped modernize content recommendation scoring models, which resulted in more than 3% increase in recommendation CTR

### Stanford Data Science Drop-in

VOLUNTEER CONSULTANT

Stanford, California

Sep. 2014 — Apr. 2015

- Provided technical consulting for data collection, manipulation, and analysis to Stanford graduate students in social science
- Topics ranged from data collection via web scraping with **Python**, building and interpreting results from statistical models with **R**, and refactoring/parallelizing **Python**/**R** code for efficiency

### International Affairs Office, Yonsei School of Business

DATABASE MANAGEMENT AND IT SUPPORT

South Korea

Apr. 2011 — Apr. 2014

- Designed and implemented college-wide database web frontend for managing international accreditation processes and academic/industrial partner relationships
- Automated the majority of paperwork by writing customized script to generate formatted Microsoft Word/Excel documents

### The E-land Group

INTERN CONSULTANT

China

Jul. 2010 — Sep. 2010

- Conducted market research and developed strategies for penetration, marketing, and operations in the Chinese beverage market (Beijing and Shanghai)
- Presented results to chief executives, leading to actual initiatives for a long-term strategic partnership, as recommended

### TWiST (Project group)

SOFTWARE ENGINEER

South Korea

Sep. 2009 — Dec. 2009

- Built and maintained custom hardware/software interface libraries in **C++**
- Developed and implemented shortest path maze solving algorithms for a prototype drone

### Aviation Command Center, R.O.K. Army

SERGEANT, GROUND TRANSPORTATION DIVISION (COMPULSORY MILITARY SERVICE)

South Korea

May. 2007 — Apr. 2009

- Optimized tactical scheduling of daily operations for 200+ ground transportation vehicles using resource allocation models
- Managed supply chain for war-time deployment of special purpose equipment

# Teaching

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## R and python crash course, MS&E

INSTRUCTOR

Stanford, California

Oct. 2016

- Instructed crash course for non-technical Stanford graduate students, teaching visualization in R with `ggplot2` and `python` programming

## R tutorial for Computational Social Science, MS&E

INSTRUCTOR

Stanford, California

Jan. 2016

- Instructed 2-day tutorial for Stanford graduate students, teaching R basics, data manipulation, visualization, and statistical modeling

## Computational Social Science Workshop at Stanford

INSTRUCTOR

Stanford, California

Sep. 2015

- Held 2-day workshop teaching `python` and web scraping

## Data Science Tutorial

INSTRUCTOR

Stanford, California

Apr. 2015

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

## Stanford, Management Science and Engineering

COURSE ASSISTANT

Stanford, California

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), and MS&E 352 (Professional Decision Analysis)

# Publications

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- *Developing a dynamic portfolio selection model with a self-adjusted rebalancing method*  
Jongbin Jung and Seongmoon Kim  
Forthcoming in Journal of the Operational Research Society. (2016)
- *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
- *Development and evaluation of a portfolio selection model and investment algorithm utilizing a Markov chain in the foreign exchange market*  
Jaeho Choi, Jongbin Jung and Seongmoon Kim  
Journal of the Korean Operations Research and Management Science Society. (2015) Vol. 40., No. 2.
- *Effects of additional constraints on performance of portfolio selection models with incomplete information: Case study of group stocks in the Korean stock market*  
Kyungchan Park, Jongbin Jung and Seongmoon Kim  
Korean Management Science Review. (2015) Vol. 32. No. 1., pp. 15–33.
- *Development and evaluation of a portfolio selection model and investment algorithm in foreign exchange market*  
Jaeho Choi, Jongbin Jung and Seongmoon Kim  
Journal of the Korean Operations Research and Management Science Society. (2014) Vol. 39., No. 2., pp. 83–95.
- *Performance of Markowitz's portfolio selection model over the accuracy of the input parameters compared to mutual funds in Korea*  
Hongseon Kim, Jongbin Jung and Seongmoon Kim  
Journal of the Korean Operations Research and Management Science Society. (2013) Vol. 38., No. 4., pp. 35–52.
- *Developing an investment framework based on Markowitz's portfolio selection model integrated with EWMA: Case study in Korea under global financial crisis*  
Kyungchan Park, Jongbin Jung and Seongmoon Kim  
Journal of the Korean Operations Research and Management Science Society. (2013) Vol. 38., No. 2., pp. 75–93.
- *Development and evaluation of an investment algorithm based on Markowitz's portfolio selection model: An investigation of the U.S. and Hong Kong Stock Market*  
Jaeho Choi, Jongbin Jung and Seongmoon Kim  
Korean Management Science Review. (2013) Vol. 30., No. 1., pp. 73–89.