

# Chung-Kyun HAN

## Operations Research Scientist

*Performance-centric algorithm design & development,  
I can sell off. Data analysis is my additional offer.*

Last Update: June 2020

### Recent Project

- **Task recommendation systems for last-mile logistics with crowdsourcing**
  - Mathematical models (implemented in Python with Gurobi API, in C/C++ with CPLEX API)
  - Recommendation algorithms (implemented in Python with Gurobi API, in C/C++ with CPLEX API)
  - Visualizer (implemented in Python)
- **Tools for quantitative investing**
  - Strategy: RSI, Dual momentum
  - Other function: Data crawling, Market monitoring, Email notification, Backtesting, Chart drawing
- **Tools for comparing prices of flight tickets**
  - Data crawling and collection with APIs
  - Data Analysis
- **Simulation study on data muling of IoT sensors through mobile crowdsourcing in a campus**
  - Algorithm for deciding the transmission power of IoT devices (implemented in Python)
  - Simulator and Visualizer (implemented in Python)

### Skill

- **Optimization Technique; Design & Development**
  - Exact Approach: Branch-and-Cut, Branch-and-Price
  - Efficient Algorithm: Column Generation, Metaheuristics, Lagrangian Relaxation,
  - Mathematical Modeling: Vehicle Routing Problem
- **Data Analysis**
  - Data Preprocessing: Geospatial Data, Big Data
  - Web Crawling & Data Visualization
- **Programming**
  - Python (Expert): NumPy, SciPy, Pandas, Matplotlib, PyQt, GeoPy, Selenium, ... etc.
  - C/C++ (Advanced) & Java (Advanced): Algorithm Development and Concurrent Programming
- **Software**
  - Optimization Solver: CPLEX, Gurobi
  - Documentation: Latex, MS office, G Suite
  - System Development: Git, AWS, Linux/Unix

### Education

Jan. 2016~      Ph.D. Candidate, Computer Science  
Singapore Management university  
Singapore

#### Personal Info.

##### E-mail

chungkyun.han@gmail.com

##### LinkedIn

www.linkedin.com/in/chungkyun

##### Phone

(+65) 9715 7059

#### Tech. Skill

##### Optimization Tech.

Expert

##### Programming

Advanced

##### Data Analysis

Intermediate

#### Soft Skill

##### Problem Solving

Very Strong

##### Responsibility

Very Strong

##### Leadership

Strong

#### Languages

##### English

Fluent

##### Korean

Native