

# Sam (Dong Wook) Ko

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## Education

### University of Southern California

M.S. in Business Analytics (STEM),  
Dept. of Data Sciences and Operations

**GPA:** 3.92

#### Expected Graduation:

May 2021

### University of Notre Dame

**Major:** Information Technology  
Management

**Concentration:** Business Analytics

**Minor:** PPE (Philosophy, Political  
Science, Economics)

**GPA:** 3.73

**Graduation:** May 2018

## Skills

- SQL
- Python
- R
- Tableau
- SAS
- Excel VBA
- Microsoft Office

## Skills & Knowledge

- Data Querying and Cleaning
- Descriptive & Inferential Statistics, Probability
- AB Testing
- Data Visualization, Dashboard
- ML Model Building using scikit-learn

## Languages

Native or bilingual proficiency in:

- English
- Korean

## Professional Experiences

### GRMDS Project Coronavirus – Los Angeles, CA

Mar. 2020 – Current

Global Association for Research Methods and Data Science

Student Data Scientist

- Created Python functions that pulls data from MongoDB databases and performs data analysis to increase the reproducibility and transparency of the analytical workflow in building the *dashboard* and *alert system* the spread of COVID-19
- Communicated with project manager, data scientists, engineers, epidemiologists, and researchers in weekly meetings to discuss process and direction of the project

### Deloitte & Touche LLP – San Jose, CA

July 2018 – June 2019

Consultant

- Analyzed SQL queries and other codes through daily interactions with developers, data analysts, and system owners to gain knowledge of how IT systems are integrated within the business flow and to ensure the completeness and accuracy of source data
- Alleviated IT risks for 4 clients from technology and financial services industries by performing more than 150 IT controls on access management, change management, and other operations involving applications, databases, and networks as part of the Sarbanes-Oxley (SOX) compliance

### Republic of Korea Army – Nonsan, Korea

Aug. 2013 – May 2015

Drill Sergeant at Korea Army Training Center

- Led over 2,400 trainees through the 4-week Initial Entry Training by instructing essential technical/behavioral skills
- Received the medal of excellence for leading the platoon with the most improvement, collecting the best feedbacks, and serving as the company leader to represent other drill sergeants to communicate with the upper-class officers

## Activities

### Centro.io Real Estate Analytics Project – Los Angeles, CA

Oct. – Dec. 2019

- Analyzed the property and sales dataset of over 45,000 houses and apartments across 4 states to develop a business insights and prediction model using Python
- Identified a significant relationship between median housing price and net international migration from an external source after the recession in 2008 for top markets of the states and located the undervalued markets for Centro to invest in

### Applichem Corp. Regression Project – Los Angeles, CA

Nov. – Dec. 2019

- Developed a multivariate regression model using JMP for a hypothetical client to determine the best property for the relocated manufacturing plant
- Transformed the dependent variable to rectify heteroscedasticity, integrated interaction terms to explain deeper relationships between variables, examined VIF to avoid multicollinearity, and utilized Cook's distance to detect the outliers

### Hesburgh Library Study Space Project – Notre Dame, IN

Aug. – Dec. 2017

- Analyzed the data collected by the door sensors that count the student traffic level at the test area (basement study space) using SQL and Python by considering technical and psychological factors
- Communicated an alternative IT solution of using beacons to track the available study spaces to the university technology specialists and renovation officers