Joonsung Park

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E D U C A T I O N

**SEOUL NATIONAL UNIVERSITY:** Ph.D. in Industrial Engineering

* Relevant coursework**:** Studies in Capital Market Theory, Engineering Economic Analysis, Corporate Governance and Investment Ethics, Competitive System Analysis

**COLUMBIA UNIVERSITY:** M.S. in Operations Research

* Relevant coursework**:** Intro to Financial Engineering, Stochastic Modeling1(Ph.D level), Data Analytics for OR, Multivariate Stat Inference,

Simulation, Optimization1(Ph.D level), Advanced Corporate Finance

**SEOUL NATIONAL UNIVERSITY:** B.S. in Industrial Engineering(Cum Laude)

* Relevant coursework: Microeconomics, Principles of Accounting, Mathematical Analysis, Game Theory and Its Application, Principles of Economics 1.2,

Internet Applications, Statistics for Industrial Engineering

* National Scholarship for Science and Engineering

-$20K Full Scholarship

*Seoul, Republic of Korea Sep 2022 – present*

*New York, NY Aug 2016 – May2019*

*Seoul, Republic of Korea Mar 2010 – Aug 2016*

*Korea Student Aid Foundation*

*Republic of Korea*

**COURSERA** : Deep Learning, Machine Learning with python

W O R K E X P E R I E N C E

**WARRINGTON BUSINESS SCHOOL**: Research Assistant

* Participated in a prof. Tao Li’s project that analyzes an illegal activity of bondholders
* Web crawled 8-K and 8-Q files that contain specific words from EDGAR

**COLUMBIA BUSINESS SCHOOL:** Research Assistant

* Participated in a prof Wei Jiang’s project analyzing U.S. mutual funds’ proxy voting record
* Web Crawled U.S. mutual funds’ proxy voting record and cleaned those data using python

*Gainesville, FL Aug 2017 - Oct2017*

*New York, NY Jan 2017 – Sep 2017*

**REPUBLIC OF KOREA AIR FORCE:** Sergeant *Suwon, Republic of Korea*

* Trained to extinguish and prevent fire and rescue a pilot
* Arranged schedules for night-shift fire trucks and firefighters
* Wrote operational reports on a weekly basis

*Mar 2014 – Mar 2016*

R E S E A R C H E X P E R I E N C E

**DATA ANALYTICS FOR OR:** Made a web site giving recommendation to clients who want to open a restaurant

* Used Yelp web data with MongoDB and made website using python and flask mongo
* Suggested optimal type of food and location for business
* Giving some tips to satisfy customers using decision tree

**SIMULATION:** Predicted a rate of return of financial product

* Used Merton’s Jump Diffusion Model as a motion of stock price
* Implemented the model with R
* Computed the exotic option price using the result of simulation

**ADVANCED CORPORATE FINANCE:** Analyzed the Southern Company’s compliance strategy on Clean Air Act in 1992

* Calculated NPV of each compliance strategies and deduced an optimal compliance strategy
* Did sensitivity analysis as the cost of sulfur dioxide allowances changes
* Estimated the price of sulfur dioxide allowances as a market becomes stabilized

**PRINCIPLES OF ACCOUNTING:** Made an investment decision based on balance sheet

* Extracted Key indicators from balance sheet of each companies
* Made a new indicator combining Key indicators using a regression model
* Made a short term and long term investment decision based on a new indicator

**S K I L L S LINEAR PROGRAMMING PACKAGE:** C-Plex, Xpress-MP **STATISTICS PACKAGE:** SAS, SPSS, R

**PROGRAMMING SKILLS:** Java, C, Python, SQL, HTML, MongoDB, Git Hub, VIM

**MACHINE LEARNING:** Regression, Classification, Decision Tree, Clustering

**DEEP LEARNING:** Neural Network