Jongwon Lee

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HIGHLIGHTS

App / 2017-2020 / Ruby on Rails, Android, iOS:

SKKOOLBUS: Bus tracking application for the shuttle bus system in Sungkyunkwan University, 6000+ downloads.
 It was created through a UX design process and without the help of other faculty or professional programmers.
 It calculated expected arrival time for buses on server real-time. I plan to apply real-time deep learning to improve accuracy.

Project / 2019-2020 / Visualizing Multidimensional Data / Python / PDF:

• A project for a <u>data visualization course</u> in Indiana University by <u>YY</u>. It was open for both undergraduate and graduate students, thus it was challenging. However, it inspired me and introduced what graduate school research looks like. I researched to solve the problem with visualizing multidimensional data with Python.

Course / 2017 Fall / Human Computer Interaction / Sungkyunkwan University / A+:

- It was the first course at a university that dealt with multiple research papers both traditional and modern such as "Computers are social actors (Nass, 1994)" and "Feeling robots and human zombies" (Gray, 2012).
- This course was the reason why I was able to be certain that I will proceed my career to graduate school. I suggested an e-book design applying HCI concepts as a final project and achieved A+ as a final grade.

Project / 2016-2017 / <u>Indie-film Genie</u> – Analysis on 'indie-film audience expectation / Grand Prize / Ruby on Rails:

A project for an informatics research competition. This focused on data analysis to predict indie-film audience
data. This project was the first for me to produce meaningful insight collaborating my economics background
and programming skills.

Full Scholarship / 2013-2020 / Samsung:

• Samsung Scholarship: I was selected by Samsung as I entered my first university, Sungkyunkwan with a full scholarship to fund my bachelor's degree at Sungkyunkwan University.

Dual Degree Program / 2013-2020 / Sungkyunkwan University and Indiana University Bloomington:

• Selected as a dual degree program student, acquiring two bachelor's degree from multiple universities. It was definitely challenging to meet graduation requirements for both school in a short period of time, however, it helped me broaden my perspective on academia in multicultural environments.

PERSONAL STATEMENT

"As a prospective graduate studying economics major and informatics minor and as a dual degree student, I am looking to utilize my versatility to pursue research in the data science field. I am particularly interested in solving issues with regression and visualizing multi-variate data to improve the accuracy of my self-created bus tracking application for student and university usage."

EDUCATION

MAY 2020 (Expected)

Bachelor of Economics (Major), Informatics (Minor) Indiana University, Bloomington, Indiana, United States

Course Project for a <u>data visualization course</u> / AUG 2019-JAN 2020 / <u>PDF</u> FA 2019 Dean's List

MAY 2020 (Expected)

Bachelor of Global Economics

Sungkyunkwan University, Seoul, South Korea

Research Assistant for professor Nielson Youngju / NOV 2016-MAR 2017:

- Conducted research on Korean Indie-film audience prediction. (First Place at a SKKU informatics research competition)
- Managed professor Nielson Youngju's web blog.

Full Tuition Scholarship Funded by Samsung / MAR 2013-MAY 2020

MAR 2010-FEB 2013

Anyang Foreign Language High School (Chinese Major)

Gyeonggi-do, South Korea

Selected through exams and interviews with a competition rate of 5.82:1.

PROFESSIONAL SKILL

Proficient in:

 Python: data analysis, visualization, won multiple awards with projects using Python, machine learning

Ruby on Rails: created a bus tracking app for my University, ranking system for a local game

- community, outsourcing, teaching experience Intermediate level:
- HTML & CSS: creating websites for projects and outsourcing
- C#: creating games with C#, Unity

WORK EXPERIENCE

JUN 2017-AUG 2017

Data Researcher/Platform Division/<u>Smilegate</u> Gyeonggi-do, South Korea

Internship – Innovative Solutions

- Assigned miscellaneous work to improve the company's platform project along with other interns. I proved that I can produce more than the company anticipates from interns by handing in extra work such as natural language analysis on Twitter and crawling data from YouTube, Google, and other relevant sources.
- Despite being an intern, I had the opportunity to lead employees to support my work. I managed and balanced leadership responsibilities as well not breaking apart team structure and hierarchical order.
- Work helped suggest a data analysis start-up at a AWS hackathon called <u>Omnisian.com</u>. I was awarded by AWS and received an Amazon Echo as a prize. (Aug. 2017)

OCT 2016-MAR 2017

Back-end Developer/Ruby on Rails/<u>LikeLion</u>

Back-end Developer – Devotion that did not get Attention

- This project was requested and supported by the owner of the largest programming education organization in Korea, <u>LikeLion</u>. I was chosen to make a four person team and start from a proposal to innovate in the university course grading community in Korea similar to <u>ratemyprofessor.com</u> in the US.
- I learned that it can difficult to create a running webpage with authentication and search module functionality as well as communicating and convincing administrators to take more interest in the project.
- Our team finished up the website with the full feature functionality. This project was ironically an incomplete project in the end despite its promising future.

AWARDS

19 AUG 2017

Top 3/Ruby on Rails, Natural Language Processing

AWS Power User/Amazon Web Service Korea

Omnisian.com

A virtual start-up called Omnisan.com that analyzed and visualized social data for a game company.

22 DEC 2016

Grand Prize/Ruby on Rails, Regression Creative Informatics Project
Sungkyunkwan University, Seoul, South Korea

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Indie-film Genie – Analysis on 'indie-film audience expectation' – Steppingstone of data analysis

- I gathered and led a team to predict indie-film audience data in Korea despite having limited subject knowledge of this area study.
- I learned how to gather and process data and how regression works in a short timeframe. I enjoyed project due to its smooth process and was able to be awarded a prize for this competition.
- I casted professor <u>Nielson Youngju</u> and had to find a way for a sophomore year undergraduate to impress a professor and show that what our team was working on is relevant to the real world.
- This <u>paper</u> concluded that domestic movie enthusiasts' opinions and foreign index was not significant on expecting the number of audiences of indie-films that are imported to Korea, and instead revealed and discussed how other variables impacts the model.
- As my expansion of knowledge went further, I delved more deeply on this dataset and area of study in 2020 for a course project for a <u>data visualization course</u>.

30 OCT 2016

Best 3/Unity C#/Puzzle, Gravity Physics Engine

Smilegate Game Jam/Smilegate

<u>Nabla(∇)</u> – The first game made by a game addict

• I took a year and a half from work and explored many fields, one of which being game development. I joined Game Jam and met great team members. We three were able to create a game in just three days from zero that was chosen as the best 3 among 30 other teams. We continued to finish up this project for next two years and published it in the Play Store.

29 SEP 2016

5th place among 200 teams/Ruby on Rails, Web Page

<u>LikeLion</u> Hackathon 2016/LikeLion

<u>Tost</u> – English Academy Search Service

• My first web project that I created as a team that functions and has a full design. It made me feel I actually can create a visible outcome with programming.

31 AUG 2016

Grand Prize/Ruby on Rails, Data Analysis Creative Informatics Project
Sungkyunkwan University, Seoul, South Korea

Analysed he effect of 'Korean Legal Cap on Phone Subsidies'

31 AUG 2016

Grand Prize/EV3 Convergence Project

Sungkyunkwan University, Seoul, South Korea

Forest fire early detection and extinguishment tower with EV3 - targeting U.S. and Canada (Patent and Modeling)

PROFESSIONAL EXPERIENCE

MAY 2014-FEB 2016

Sergeant/Korean Army Yongsan US Army Garrison

Seoul, South Korea

Military Police / Directorate of Emergency Services (DES) / SEP 2015-FEB 2016:

- Interviewed and screened visitors accessing the military post and escort official visitors Investigator / Criminal Investigation Command (CID) / MAY 2014-AUG 2015:
 - Simultaneous interpretation during field investigation and translate official statements and legal documents

AUG 2016-JAN 2020

Simultaneous Interpreter & Translator

Seoul, South Korea

English-Korean Translation of a project proposal Formula-E Seoul E-prix 2020 / 21 SEP 2019

English-Korean Translation of provisions and posters for <u>World Club Dome</u> Korea 2017 / 13 FEB 2017 English-Korean Simultaneous Interpretation at a meeting between LINE Korea and Google Japan / 19 AUG 2016

LEADERSHIP EXPERIENCE

MAR 2016-DEC 2017

Programming Club <u>Likelion</u> Tutor, President of Sungkyunkwan Univ. Branch
Sungkyunkwan University, Seoul, South Korea

Recruited New Members, Participated in Representative Assembly as a President / DEC 2016-JUL 2017 <u>Provide Programming Educations</u>, Lead Projects as a Tutor / MAR 2016-DEC 2017

JAN 2017-FEB 2017

Winterails Code Study Leader

Seoul, South Korea

Created, Gathered members, and Led Ruby on Rails, JavaScript, PostgreSQL code study

EXTRACURRICULAR ACTIVITIES

OCT 2017-JUN 2018

Volunteer work, Gangnam District Office Seoul, South Korea

Provided programming education for economically struggling family elementary school students

HOBBIES AND INTERESTS

Blind cubing
International Trading Card Gaming (World Competitor)