



Soyoung Cho

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"To Make Each Day Count"

Education

Korea Advanced Institute of Science and Technology, KAIST

M.S. STUDENT IN KNOWLEDGE SERVICE ENGINEERING

Jan. 2021 (Expected) -

Daejeon, S.Korea

Kwangwoon University

B.S. IN INFORMATION CONVERGENCE, MAJOR IN DATA SCIENCE

- Total GPA of 4.29 / 4.5, Major GPA of 4.27 / 4.5 (Credits taken : 155/133)

Mar. 2017 - Feb. 2021 (Expected)

Seoul, S.Korea

Publications

DOMESTIC

- 2020 **KCC2020**, Jonghyeok Park, Soyoung Cho, Jonghyeok Lee, Hyuntae Lim, Yungyung Cheong.

Detection of Illicit Drug Selling Tweets Using Phoneme Separation and Machine Learning Algorithm

KIISE

- 2020 **KCC2020**, Jihwan Lee, Jeongwon Kwak, Dongyoung Kim, Yeongseo Kim, Soyoung Cho, Jaesung Park.

Hyper-parameter Optimization for Neural Machine Translation on Korean-English

KIISE

Internships

Intelligence Information Convergence Lab of ETRI

SUMMER RESEARCH INTERN

July. 2020 - Aug. 2020

Bundang, S.Korea

- Participated in bearing fault diagnosis project *Related Article*
- Analyzed(EDA) raw serial sensor data of different bearing machine environments
- Processed and transformed data, studied and applied AutoML, built simple deep learning model for multi-class classification

Undergraduate Research, Data Mining Lab

UNDERGRADUATE RESEARCHER

June. 2019 - Aug. 2019

Seoul, S.Korea

- Studied Natural Language Processing (NLP) algorithms
- Built dataset through organizing clauses modifying nouns for NLP project of NRF (National Research Foundation of Korea)

Project Experience

Seoul Air Pollution Data Analysis Project

CONTRIBUTOR

Oct. 2020 - Dec. 2020

Seoul, S.Korea

- Term project for course *Data Mining and Analysis* of 2020-Fall semester
- Analyzed various datasets assumed to cause air pollution in Seoul using R
- Performed and compared imputation methods to replace NA (KNN, Miss Forest, MICE)
- Trained models to predict Seoul's PM10, PM2.5

Korean-English Neural Machine Translation Project

CONTRIBUTOR

Jan. 2020 - June. 2020

Seoul, S.Korea

- Capstone design project based on the transformer model of open-source framework OpenNMT
- Used a Korean-English parallel corpus opened in AI Hub which I participated in building the corpus, eventually helped to understand the data
- Improved the performance of the model in the BLEU score by 33.5 with sampled test data through changing the methods of preprocessing, tokenization and tuning hyper-parameter(manual search)
- Submitted short paper at KCC2020 as a co-author

2019 International AI World Cup (Hosted by KAIST)

TEAM LEADER

Sep. 2019 - Nov. 2019

Indiana, U.S.A

- Won the 1st prize(\$4000) in 'AI Commentator' part *Related Article*
- Our team built a rule-based robot simulation soccer automatic commentary model
- Defined available situations in the robot simulation soccer as specific as possible, built, and tuned commentary scripts
- Part of the 'K-SW Purdue Univ. Capstone Program' selected as school representative, organized by the IITP(Institute for Information and Communications Technology Promotion)

Drug Selling Illicit Tweets Classification Project

Mar. 2019 - Aug. 2019

TEAM LEADER, CONTRIBUTOR, PRESENTER

Seoul, S.Korea

- Won the 2nd prize in 'Drug Safety Management Contest using Big-data' hosted by KIDS through an approach to improve illicit tweet detection
- Ensembled models with recombining separated Korean letters to improve classification performance
- Experienced the whole process of machine learning through building datasets, analyzing, preprocessing, and modeling
- Submitted short paper at KCC2020 as a co-author

Design Application 'CULTO(Culture of Today)'

July. 2018 - Aug. 2018

CONTRIBUTOR

Seoul, S.Korea

- Participated 'Culture Data Application Contest'
- Proposed mobile application on 'News Related Culture Contents Recommendation' as a team
- Sketched ideas and scraped news articles through web crawling in python

Awards & Honors

AWARDS

2020	1st Place, People's Choice Award , Multi-Y Capstone Design Competition (End-to-End Speech Translation)	Kwangwoon Univ.
2020	Dean's List , for Academic Excellence	Kwangwoon Univ.
2020	1st Place, People's Choice Award , 5G based ICT Convergence Idea Contest <i>Related Article</i>	KICS, SKT
2019	1st Place , AI World Cup 'AI Commentator' World Final	KAIST
2019	Selected Participant as School Representative , K-SW Purdue University Capstone program	IITP
2019	2nd Place , Drug Safety Management Contest Using Big Data	KIDS
2019	Dean's List , for Academic Excellence	Kwangwoon Univ.
2018	3rd Place , 19th English Essay Contest	Kwangwoon Univ.
2018	2nd Place , AI based English Translation National Contest	Kwangwoon Univ.
2018	Dean's List , for Academic Excellence	Kwangwoon Univ.
2017	Advance to the Finals , Air Traffic Big Data Idea Contest	KAC
2017	3rd Place , IoT Smart Software Competition	Kwangwoon Univ.
2017	1st Place , English Contest awarded by the President of Kwangwoon University	Kwangwoon Univ.

HONORS

2020	Semester High Honors , awarded to students with high achievements throughout the semester	Kwangwoon Univ.
2020	Software Excellence Scholarships , awarded to students with excellence in software	Kwangwoon Univ.
2020	Honors Scholarships , awarded to qualified students with outstanding efforts	KRX Foundation
2019	Honors Scholarships , awarded to qualified students with outstanding efforts	Emons Furniture
2019	Software Excellence Scholarships , awarded to students with excellence in software	Kwangwoon Univ.
2018	Semester High Honors , awarded to students with high achievements throughout the semester	Kwangwoon Univ.
2018	Software Excellence Scholarships , awarded to students with excellence in software	Kwangwoon Univ.
2017	English Excellence Scholarships , awarded to students with excellence in English	Kwangwoon Univ.

Teaching

Computational Thinking

Sep. 2020 - Dec. 2020

TEACHING ASSISTANT

Kwangwoon University, Seoul

- Course in Department of Information Convergence for freshman
- Marked python programming assignments and proctored exam

Object-Oriented Programming

Mar. 2020 - Jun.2020

TEACHING ASSISTANT

Kwangwoon University, Seoul

- Course in Department of Information Convergence for sophomores
- Marked assignments and proctored exam

D.Lab Code Academy

July. 2019, Feb. 2020

INSTRUCTOR

Gyeonggi-do, S.Korea

- Taught elementary students and middle school students the basics of programming
- Covered scratch and app-inventor

Reading-Bee English Academy

Jan. 2020

INSTRUCTOR

Seoul, S.Korea

- Taught elementary students English Essay Writing
- Covered English vocabularies, Essay Writing, Speaking, and Listening

Golden Bell School (Samsung Card Data Mining Education Program)

INSTRUCTOR, ASSISTANT

- Taught middle school students the notion of big data and data mining

Feb. 2019 - Aug.

Seoul, S.Korea

Software Winter School

TEACHING ASSISTANT

- Short courses of Python Programming, C Programming in Software Convergence College
- Assisted in programming practice, answered questions in person, and proctored exams

Jan. 2019 - Feb. 2019

Kwangwoon University, Seoul

Extracurricular Activity

Kwangwoon University Student Council

PR TEAM LEADER

- Planned Software Convergence College student council's tasks and volunteered off-site (2018-2019)
- Led Software Convergence College PR Team (2019) and Student Council Emergency Committee PR Team (2020) to promote and advertise student council's businesses and events on-line and off-line

Jan. 2018 - June. 2020

Kwangwoon University, Seoul

CoVong (Coding Volunteer Group of Kwangwoon University)

MEMBER

- Joined the university student education donation program in 2018 & 2019, hosted by the Ministry of Education
- Taught middle school students app-inventor programming as part of KT

Mar. 2018 - Aug. 2019

Kwangwoon University, Seoul

Deep Learning Principle Study Group

GROUP MEMBER

- Joined a study group studying basics of deep learning with mathematics
- Implemented nodes from scratch using numpy and pandas, read papers

Jan. 2020 - Feb. 2020

Seoul

AI Hub Korean-English Parallel Corpus Construct Project

CONTRIBUTOR (TRANSLATOR)

- Participated Korean-English Machine Translation Post Editing Parallel Corpus project managed by ETRI
- Currently uploaded at AI Hub Website

Mar. 2018 - Aug. 2019

EVERTRAN, Seoul

MSP Evangelism : RL with openAI Gym

PARTICIPANT

- Participated off-line evangelism one-day seminar on Reinforce Learning managed by Microsoft Student Partners

Mar. 2019

Gangnam, Seoul

2018 Hello, Kaggle (Open Seminar)

PARTICIPANT

- Participated off-line workshop on Kaggle and AI techniques managed by DataBreak

Oct. 2018

Jongno, Seoul

KWWS (Kwangwoon Women Soccer Club)

CLUB MEMBER

- Joined soccer matches and learned soccer skills

Sep. 2017 - Dec. 2017

Kwangwoon University, Seoul

G-market & Auction

GLOBAL SNS SUPPORTERS

- Participated Taeon-gun Global SNS Supporters hosted by G-market and Auction
- Experienced and posted articles on blog about beautiful nature of Taeon

Nov. 2017

Taeon, Chungcheong

Skills

Programming Python, R, C, Java, MySQL, Neo4J, Spark, Android

Deep Learning Pytorch, Keras

Data Analysis Numpy, Pandas, scikit-learn, Matplotlib, seaborn

Language Proficiency

Fluent in English, Native in Korean

- 2020.06 - TEPS 455
- 2020.04 - OPIC AL
- 2019.08 - TOEIC 970
- 2017.11 - TOEIC SPEAKING Lv7 (score : 180)
- 2017.11 - TOEIC WRITING Lv8 (score : 190)