Soyoung **Cho**

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"To Make Each Day Count"

Education

Kwangwoon University   *Mar. 2017 - Feb . 2021 (Expected)*
SENIOR STUDENT IN INFORMATION CONVERGENCE, MAJOR IN DATA SCIENCE   *Seoul, S.Korea*
- Major GPA of 4.3 / 4.5, Total GPA of 4.29 / 4.5 (97.6 / 100)

Publications

DOMESTIC

2020   **Soyoung Cho**, Jonghyeok Park, Jonghyeok Lee, Hyuntae Lim, Yungyung Cheong.   *KCC2020*
        Detection of Illicit Drug Selling Tweets Using Phoneme Separation and Machine Learning Algorithm

2020   **Soyoung Cho**, Jihwan Lee, Jeongwon Kwak, Dongyoung Kim, Yeongseo Kim, Jaesung Park.   *KCC2020*
        Hyper-parameter Optimization for Neural Machine Translation on Korean-English

Project Experience

Korean-English Neural Machine Translation Project   *Jan. 2020 - Present*
CONTRIBUTOR   *Seoul, S.Korea*
- Capstone design project based on the transformer model of OpenNMT open-source framework
- Using 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

Smishing Message Detection Project   *Jan. 2020 - Feb. 2020*
CONTRIBUTOR   *Seoul, S.Korea*
- Joined the 'Financial SMS Phishing Message Classification' competition hosted by the KB Finance
- Achieved 97% of accuracy but was found to be the type 2 error, classifying whole data as normal data due to the skewness in data
- Willing to study the solutions of imbalanced text data problems

Undergraduate Research, Data Mining Lab   *June. 2019 - Feb. 2020*
UNDERGRADUATE RESEARCHER   *Seoul, S.Korea*
- Researched Natural Language Processing (NLP) algorithms for information extraction and sentiment analysis in tour reviews
- Built dataset through crawling Agoda websites' reviews and organizing the clauses modifying nouns

2019 International AI World Cup (Hosted by KAIST)   *Sep. 2019 - Nov. 2019*
TEAM LEADER, PRESENTER   *Indiana, U.S.A*
- Won the 1st prize($4000) in 'AI Commentator' part
- Built a rule-based robot simulation soccer automatic commentary model with team members
- Defined the 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' 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
- Applied an ensemble model methods 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

Awards & Honors

AWARDS

2020	**1st Place, People's Choice Award**, 5G based ICT Convergence Idea Contest	*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	**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

Object-Oriented Programming
TEACHING ASSISTANT

Mar. 2020 - PRESENT

Kwangwoon University, Seoul

- Object-Oriented Programming in Department of Information Convergence
- Answers questions in person and online, marks assignments, and will proctor exam

D.Lab Code Academy
INSTRUCTOR

Feb. 2020 - PRESENT

Pyeongchon, Gyeonggi-do

- Taught elementary students and middle school students the basics of programming
- Covers python, scratch, and app-inventor

Golden Bell School (Samsung Card Data Mining Education Program)
INSTRUCTOR, ASSISTANT

Feb. 2019 - Aug. 2019

Seoul, S.Korea

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

Software Winter School
TEACHING ASSISTANT

Jan. 2019 - Feb. 2020

Kwangwoon University, Seoul

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

Extracurricular Activity

Kwangwoon University Student Council Emergency Committee
PR TEAM LEADER

Jan. 2020 - PRESENT

Kwangwoon University, Seoul

- Leading PR Team to promote and advertise student council's businesses and events

Software Convergence College Student Council
PR TEAM MEMBER, LEADER

Jan. 2018 - Dec. 2019

Kwangwoon University, Seoul

- Planned Software Convergence College student council's tasks and volunteered off-site
- Led PR Team to promote and advertise student council's businesses and events on-line and off-line

CoVong (Coding Volunteer Group of Kwangwoon University)
MEMBER

Mar. 2018 - Aug. 2019

Kwangwoon University, Seoul

- 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 education program

AI Hub Korean-English Parallel Corpus Construct Project
CONTRIBUTOR (TRANSLATOR)

Mar. 2018 - Aug. 2019

EVERTRAN, Seoul

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

Skills

Programming   C, Java, Python, R, MySQL, Android
Deep Learning   Pytorch
Data Analysis   Numpy, Pandas, Matplotlib, seaborn, gensis, scikit-learn, Spark

Language Proficiency

Fluent in English, Native in Korean

- 2020.04 – OPIC AL
- 2019.08 – TOEIC 970