

"To Make Each Day Count"

Education

Korea Advanced Institute of Science and Technology, KAIST

Jan. 2021 (Expected) -

Daejeon, S.Korea

M.S. STUDENT IN KNOWLEDGE SERVICE ENGINEERING

Mar. 2017 - Feb . 2021 (Expected)

Seoul, S.Korea

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)

Publications

Kwangwoon University

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

July. 2020 - Aug. 2020

Summer Research Intern

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

June. 2019 - Aug. 2019

Undergraduate Researcher

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

Oct. 2020 - Dec. 2020

Seoul, S.Korea

Contributor

- 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

Jan. 2020 - June. 2020

CONTRIBUTOR

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)

Sep. 2019 - Nov. 2019

TEAM LEADER

Indiana, U.S.A

- Won the 1st prize(\$4000) in 'Al 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)

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

Awards & Honors

AWARDS

| 2021 | Advance to the Finals (ongoing), 2021 KPMG Ideation Challenge based on AI technology | KPMG |
|------|--|-----------------|
| 2021 | 2nd Place, Online Business Simulation Contest | Jeonbuk Univ. |
| 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 Related Article | KICS, SKT |
| 2019 | 1st Place, Al World Cup 'Al 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 Kwangwoon University, Seoul

TEACHING ASSISTANT

• Course in Department of Information Convergence for freshman

• Marked python programming assignments and proctored exam

Object-Oriented Programming

Mar. 2020 - Jun.2020

Kwangwoon University, Seoul

TEACHING ASSISTANT

• 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 Seoul, S.Korea

INSTRUCTOR

• Taught elementary students English Essay Writing

Covered English vocabularies, Essay Writing, Speaking, and Listening

Golden Bell School (Samsung Card Data Mining Education Program)

Feb. 2019 - Aug. Seoul, S.Korea

INSTRUCTOR, ASSISTANT

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

Software Winter School Jan 2019 - Feb 2019

TEACHING ASSISTANT

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

Jan. 2018 - June. 2020

PR TEAM LEADER

Kwangwoon University, Seoul

- 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

CoVong (Coding Volunteer Group of Kwangwoon University)

Mar. 2018 - Aug. 2019

MEMBER

- 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

Deep Learning Principle Study Group

Jan. 2020 - Feb. 2020

GROUP MEMBER

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

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

MSP Evangelism: RL with openAI Gym

Mar. 2019

PARTICIPANT

Gangnam, Seoul

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

2018 Hello, Kaggler (Open Seminar)

Oct. 2018

Nov. 2017

PARTICIPANT

Jongno, Seoul

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

KWWS (Kwangwoon Women Soccer Club)

Sep. 2017 - Dec. 2017

CLUB MEMBER

G-market & Auction

Kwangwoon University, Seoul

· Joined soccer matches and learned soccer skills

GLOBAL SNS SUPPORTERS

Taean, Chungcheong

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

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)