

Ki Soo Kim

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"The important thing is an unbreakable heart"

EDUCATION

Kwangwoon University

March. 2018 - Feb.2024 (Expected)

B.S. in Information Convergence, Major in Data Science

• Total GPA: 4.31/4.5, Major GPA of 4.32/4.5 (Credits taken: 149/133) after 2023-Spring semester

INTERNSHIPS

Undergraduate Research

July. 2022 - present

Undergraduate Researcher in PADA(Process Aware Data Analytics) Lab

- Data Science research based on Process mining and Text mining
- Participated in research paper seminars

PROJECT EXPERIENCE / COMPETITION

Dacon Basic Competition, wind power generation prediction

Feb. 2023 - Mar. 2023

- Participated in a contest hosted by Dacon during 2023-Winter Vacation.
- Prediction of wind power generation based on weather information.
- Read the thesis 'Wind power generation prediction using deep learning to find out which factors of weather affect wind power generation.
- After creating a derived variable, performed scaling (minmax), used the ExtraTreesRegressor.
- As a result of the contest, I was in the 2nd place overall

Dacon Basic Competition, a soccer player's prospect prediction

Nov. 2022

- Participated in a contest hosted by Dacon during 2022-Fall Semester.
- Prediction of promising players using the ability information of players stored in FIFA 22
- Realized how to improve Macro F1 Score when there is a slight imbalance.
- Through hyperparameter tuning, ensemble and adjusting the threshold of the prediction probability, Macro F1 Score raised to 77.47%.
- As a result of the contest, I was in the 3rd place overall

Dacon Basic Competition, travel product application prediction

Aug. 2022 - Sep.2022

- Participated in a contest hosted by Dacon in 2022-summer vacation.
- Predicted whether to apply for travel products through basic information of customers and information related to travel products.
- Studied Machine Learning Basic Algorithm (LR, RF, XGB, LGBM, ETC)
- Through hyperparameter tuning and stacking ensemble, the accuracy raised to 91.88%
- As a result of the contest, I was in the 2nd place overall

Song recommendation system based on user's emotions

Mar. 2022 - June. 2022

- Term project for course True Light Design Semester of 2022-Spring semester (Team Member)
- Song data was collected through crawling and text pre-processing was performed.
- Predict emotions based on user posts on SNS and recommend songs with predicted emotions.
- To reduce sentiment prediction error, we use Cosine Similarity between SNS posts and songs.
- Deployed as a Chrome extension for practical use

Topic Modeling by rating for [today's house] review for self-employed students

Mar. 2022 - June 2022

- Term project for course Text Mining of 2022-Spring semester (Team Leader)
- Sentiment Analysis for rescoring review rates, Topic Modeling was performed by rescoring by household
- Extract topic insights and suggesting future direction for each rating(rescoring)
- Learned Crawling, text tokenizing and vectorization, Deep Learning Model for text classification

Prediction of heart disease based on imbalanced data

Mar. 2022 - June. 2022

- Term project for course Machine Learning of 2022-Spring semester (Team Leader)
- Analyzed data assumed to cause heart disease using Python
- Data preprocessing(replace NA, scaling, encoding) and Compared Machine Learning Algorithm with evaluation metrics(accuracy, f1 score).
- After modeling, we interpret why the model predicted it the way it did. (XAI)
- Learned how to improve imbalance data problem in machine learning tasks.

Others

Dacon Basic Competition, overseas Real Estate Monthly Rent Forecast
Implementation of Algorithms to solve imbalance problem in Machine Learning
Analysis of the Venue network of people living in Seoul
Sep. 2022 – Dec. 2022
Dacon Basic Competition, Shopping Mall review rating prediction (Using Python)
Running App development for runners (Using Android Studio)
Oct. 2021 – Dec. 2021

EXTERNAL ACTIVITIES

Student Association Big Data Club BOAZ

Jan. 2023 - Jan. 2024(Expected)

- Working as a club Member in visualization and analysis sessions
- Learned Tableau for visualization, created a dashboard that informs the hospital and pharmacy dashboard status
- Had time to understand and implement deep learning with PyTorch in a study in the club. As a Study Leader, I created assignments for my team members and solve the problems.

Student Association presentation club SPLING 47th

Jan. 2022 - June. 2022

- Worked as a club management during 2022-Spring semester
- Served as a mentor to help members improve their presentation skills.
- As the head of the HR team, managed club members to keep the rules well.

Student Association presentation club SPLING 45th

Aug. 2021 - Dec. 2021

- Worked as a club member during 2021-Fall semester
- Improved the ability to create Powerpoint and presentation skills
- Received the Perfect Attendance Award and the Outstanding Graduation Award given to those who

Education Donation Program 'Sok Sok Camp'

Apr. 2021 - Sep. 2021

- Taught coding (entry) to 6th grade students during summer vacation. (Team Leader)
- As a Team Leader, planned and managed education and oversaw accounting and filming.
- Learned how to improve the quality of education and the importance of communicating with team members.

SKILLS

Programming: Python, R, JAVA, C

Data Analysis: Numpy, Pandas, Matplotlib, seaborn, Tableau, NodeXL, Excel **Machine Learning & Deep Learning :** Skicit-learn, Pytorch, Keras, TensorFlow

Language Skills

Teps 341 (2023.02)

AWARDS AND HONORS

[AWARDS]	
2 nd place in predicting wind power generation	2023 (Dacon)
Encouragement Prize in Industry-University Linkage SW Project	2023 (Kwangwoon Univ.)
3 rd place in predicting soccer players promising	2022 (Dacon)
2 nd place in predicting travel product application	2022 (Dacon)
Dean's list for academic excellence	2019 (Kwangwoon Univ.)
Dean's list for academic excellence	2018 (Kwangwoon Univ.)

[HONORS]

Semester high Honors for high achievements throughout the semester	2023 (Kwangwoon Univ.)
Semester high Honors for high achievements throughout the semester	2022 (Kwangwoon Univ.)
Semester high Honors for high achievements throughout the semester	2021 (Kwangwoon Univ.)
Semester high Honors for high achievements throughout the semester	2019 (Kwangwoon Univ.)
Honors Scholarships for TOEIC All Care excellent scholarship	2019 (Kwangwoon Univ.)
Semester high Honors for high achievements throughout the semester	2018 (Kwangwoon Univ.)

Teaching & Assistant

Software Vacation School

Jan. 2023 - Feb. 2023, Feb. 2022, Jul. 2022

- Course in Department of Information Convergence for freshman
- Tutored Python Programming and C Programming

Discrete Mathematics teaching assistant

Sep. 2022 - Dec. 2022

- Course in Department of Information Convergence for freshman
- Marked Mid-term and Final Exam and proctored exam

Tutoring middle/high school students

May. 2018 - June. 2023

- Taught Mathematics for middle/high school students
- Created hand-made books for students and develop test questions

CERTIFICATION

Dacon Basic AI Competition wind power generation prediction contest (2nd place)

Dacon Basic AI Competition to predict whether a soccer player will be promising (3rd place)

Mar.2023

Nov.2022

Dacon Basic AI Competition Travel product application prediction contest (2 nd place)	Aug.2022
Korean History Proficiency Test Level 1	Apr.2021
Structured Query Language Developer(SQLD)	Mar.2021
Linux Master Level 2 Certification	Oct.2019