Kisoo **Kim**

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"The important thing is an unbreakable heart."

Education

KwangWoon University   *Seoul, S.Korea*

B.S. in INFORMATION CONVERGENCE, MAJOR IN DATA SCIENCE   *Mar. 2018 - Feb. 2024 (Expected)*

- Total GPA of 4.31 / 4.5, Major GPA of 4.32 / 4.5 (Credits taken : 127/133)

Internships

Process-Aware Data Analytics Lab   *Seoul, S.Korea*

UNDERGRADUATE RESEARCHER   *July. 2022 - Present*

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

Project Experience

Cosmetic recommendation application through text mining   *Seoul, S.Korea*

TEAM LEADER, PRESENTER   *Mar. 2023 - Nov. 2023 (Expected)*

- Capstone design project for graduation work for one semester
- Development of a system that recommends cosmetics suitable for customers through a keyword-based search function.
- Sentiment analysis has been used for showing recommendation details, implemented as app using Android Studio.

Development of Deep learning-based SW static test false alarm automatic classification

system   *Seoul, S.Korea*

TEAM MEMBER   *June. 2022 - Feb. 2023*

- Industry-University Linkage SW Project
- Analyzed given D2A data, preprocessed code data, built deep learning model to detect false alarms generated by static analysis tools.
- Studied static analysis reading paper 'APrioritizing Security Alerts - DoD Case Study'

Dacon Basic Competition, a soccer player's prospect prediction   *Seoul, S.Korea*

INDIVIDUAL PROJECT   *Nov. 2022*

- Prediction of promising players using the ability information of players stored in FIFA 22
- Through hyperparameter tuning, ensemble and adjusting the threshold of the prediction probability, Macro F1 Score raised to 77.47%.
- Realized how to improve Macro F1 Score when there is a slight imbalance

Dacon Basic Competition, travel product application prediction   *Seoul, S.Korea*

INDIVIDUAL PROJECT   *Nov. 2022*

- Prediction of whether to apply for travel products through basic information of customers and information related to travel products.
- Through hyperparameter tuning and stacking ensemble, the accuracy raised to 91.88%.
- Generate derived variables that have a significant effect on prediction, and select variables using feature importances.
- Studied Machine Learning Basic Algorithm (LR, RF, XGB, LGBM, ETC)

Song Recommendation system based on user's emotions   *Seoul, S.Korea*

TEAM MEMBER, PRESENTER   *Mar. 2022 - Jun. 2022*

- Term project for course True Light Design Semester of 2022-Spring semester
- Collected data through Crawling and apply sentiment analysis based on user's SNS posts using LSTM.
- Songs were recommended based on predicted emotions, and cosine similarity was used in the song recommendation process.
- Deployed as a Chrome extension for practical use

Topic Modeling by rating for [today's house] review for self-employed students   *Seoul, S.Korea*

TEAM LEADER, PRESENTER   *April. 2022 - June. 2022*

- Term project for course Text Mining of 2022-Spring semester
- Sentiment Analysis is performed to identify positive/negative reviews and review ratings are reset based on the results of sentiment analysis.
- Topic modeling was conducted with reset review ratings, and insights were derived from important topics for each rating.

Prediction of presence or absence of heart disease using imbalanced data
TEAM LEADER, PRESENTER

Seoul, S.Korea
April. 2022 - June. 2022

- Term project for course Machine Learning of 2022-Spring semester
- Found a preprocessing technique suitable for the data by looking for methods to replace missing values, scaling for continuous variables, and encoding methods for categorical variables.
- Studied Machine Learning model techniques such as Random Forest, LightGBM(LGBM), Support Vector Machine(SVM), and applied them to tableau data.
- Interpretation of the predictive results of the machine learning model was performed using interpretable algorithms (XAI) such as PDP, ICE, and SHAP.
- Realized that when evaluating performance, selecting suitable performance indicators for the problem to be solved, such as precision and f1 score, as well as accuracy.

Running application development for runners
INDIVIDUAL PROJECT, PRESENTER

Seoul, S.Korea
Oct. 2021 - Dec. 2021

- Individual Project for course Mobile Programming of 2021-Fall semester
- As a motif of 'Nike Run' application, it was implemented to record running and walking separately.
- SQLiteDataBase, Intent, ListItem, MenuBar was used for measuring and searching records.

Others

Creation of Gwangjin-gu traffic status dashboard (Using Python and Tableau)
Creation of national hospitals, clinics and pharmacies dashboard (Using Python and Tableau)
Implementation of Algorithms to solve imbalance problem in Machine Learning (Using PySpark)
Analysis of the Venue network of people living in Seoul (Using Social Network methodology)
Development of Psychological Propensity prediction Algorithm (DACON, Using Python)
Prediction of Shopping Mall review rating (DACON, Using Python)
Analysis of Denver's crime rate (Using Excel and Tableau)

Awards & Honors

AWARDS

2023	**2nd place**, Dacon Basic in predicting wind power generation	*Dacon*
2023	**Encouragement Award**, Industry-University Linkage SW Project Competition	*Kwangwoon Univ.*
2022	**3rd place**, Dacon Basic in predicting soccer players promising	*Dacon*
2022	**2nd place**, Dacon Basic in predicting travel product application	*Dacon*
2019	**Dean's List**, for Academic Excellence	*Kwangwoon Univ.*
2018	**Dean's List**, for Academic Excellence	*Kwangwoon Univ.*

HONORS

2023	**Semester High Honors**, Awarded to students with high achievements throughout the semester	*Kwangwoon Univ.*
2022	**Semester High Honors**, Awarded to students with high achievements throughout the semester	*Kwangwoon Univ.*
2021	**Semester High Honors**, Awarded to students with high achievements throughout the semester	*Kwangwoon Univ.*
2019	**Semester High Honors**, Awarded to students with high achievements throughout the semester	*Kwangwoon Univ.*
2019	**English Excellence Scholarships**, Awarded to students for excellence in 'TOEIC ALL CARE' program	*Kwangwoon Univ.*
2018	**Semester High Honors**, Awarded to students with high achievements throughout the semester	*Kwangwoon Univ.*

Extracurricular Activity

Student Association Big Data Club BOAZ
CORE MEMBER

Seoul, S.Korea
Jan. 2023 - Jan. 2024 (Expected)

- Working as a club Member in Visualization and Analysis sessions.
- Learned Tableau for basic visualization, created a dashboard that informs the hospital and pharmacy dashboard status.
- As the Leader at the study group 'Deep Learning Basic with PyTorch', learned about the basic theory of deep learning and implemented it using PyTorch.

Student Association presentation club SPLING 47th
COORDINATOR

Seoul, S.Korea
Jan. 2022 - June. 2022

- Served as a mentor to help members improve their presentation skills.
- As the head of the HR team, understood the internal environment from the perspective of club members and managed internal rules.

Student Association presentation club SPLING 45th

Seoul, S.Korea

Club Member

Aug. 2021 - Dec. 2021

- Improved the ability for creating Powerpoint and presentation skills.
- Received an excellent completion award and a perfect attendance award while participating in club activities.

Education Donation Program 'Sok Sok Camp'

Seoul, S.Korea

Team Leader

Aug. 2021 - Dec. 2021

- Taught coding (entry) to 6th grade students during summer vacation.
- As a team leader, planned the training curriculum and oversaw accounting and administrative tasks necessary for training.
- Learned how to improve the quality of education and the importance of communicating with team members.

Teaching

J's plan Mathematics Academy

Seoul, S.Korea

Instructor

May. 2021 - June. 2023 (Expected)

- Taught math to middle school and high school students
- Covered all middle school math and Probability & Statistics, Calculus in preparation for college entrance exams.
- Created materials for class and prepared test questions.

Software Summer & Vacation School

Seoul, S.Korea

Teaching Assistant

Jan. 2022 - Feb. 2023

- Short courses of Python Programming, C Programming in Software Convergence College
- Assisted in programming practice, answered individual questions and supervised exams.

Teaching Assistant

Seoul, S.Korea

Discrete Mathematics

Sep. 2022 - Dec. 2022

- Course in Department of Information Convergence for freshman
- Marked midterm and final exam, supervised exams

Individual tutoring

Seoul, S.Korea

Instructor

Apr. 2018 - Oct. 2019

- Taught math to middle school and high school students
- Covered equations, functions, and sets that are the basics of high school mathematics.
- Created handmade textbook and mock exam for class.

Skills

Programming	Python, R, C, Java
Deep Learning	Skicit-learn, PyTorch, Keras, TensorFlow
Data Analysis	Numpy, Pandas, Matplotlib, Seaborn, Tableau, NodeXL

English Proficiency

Fluent in English, Native in Korean

- 2023.02 - TEPS 341
- 2018.09 - TOEIC 840