

Doyeon Kim

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Education

Seoul National University

M.S., ARTIFICIAL INTELLIGENCE

- Overall GPA: 3.72 / 4.3, major GPA: 3.72 / 4.3 (credits taken: 33/24)
- Prof. U. Kang's Data Mining Laboratory

Seoul, South Korea

Mar. 2022 - Feb. 2024

Tampere University

B.S., DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING/CSE

- Completed 4 major courses and 2 general education courses (credits taken: 18)

Tampere, Finland

Aug. 2019 - Dec. 2019

Kwangwoon University

B.S., INFORMATION CONVERGENCE, DATA SCIENCE

- Overall GPA: 4.07 / 4.5, major GPA: 4.16 / 4.5 (credits taken: 137/133)

Seoul, South Korea

Mar. 2018 - Feb. 2022

Publication

INTERNATIONAL

- 2024 **PLOS ONE**, Accurate multi-behavior sequence-aware recommendation via graph convolution networks
Doyeon Kim, Saurav Tanwar, and U Kang

SCIE

- 2023 **PLOS ONE**, Fast and Accurate Interpretation of Workload Classification Model
Sooyeon Shim, Doyeon Kim, Jun-gi Jang, and U Kang

SCIE

DOMESTIC

- 2021 **KCC2021**, A Study on User Usage Patterns using OTT Web Service Log Data
Hi-Seoung Ahn, Joo-Hyun Moon, Doyeon Kim, Jin-Ah Kim, Yu-jin Lee

KIISE

Project Experience

AI Health Coach Project (Samsung Electronics Co.)

Mar. 2025 -

- Managed cloud infrastructure by adding members and assigning roles on **Azure and GCP servers**
- Collaborated with **Samsung Research America** to integrate machine learning models into production systems, ensuring reliability across global teams
- Prepared and analyzed monthly server infrastructure budget reports, ensuring accurate forecasting and alignment with project needs

Restaurant Recommendation AI Service (yamyam lab)

Feb. 2025 -

- Developed a **LightGCN-based personalized recommender**
- Built an LLM-driven "**Restaurant World Cup**" feature that generated tailored explanations for users' preferences, improving engagement

Energy Score Insight Messages for Galaxy Z Flip7 / Fold7 (Samsung Electronics Co.)

Jan. 2025 - Apr. 2025

- Fine-tuned an on-device **Gauss-3B model** to generate personalized insight messages
- Designed evaluation metrics to validate message quality and personalization, increasing user trust in recommendations

Internal AI Chatbot for Digital Health Team (Samsung Electronics Co.)

Dec. 2024 - Mar. 2025

- Fine-tuned a Llama-based LLM on Korean medical datasets using LoRA, improving domain-specific accuracy
- Built a **RAG pipeline (LangChain + vLLM)** to provide context-grounded answers, enhancing response reliability
- Developed a web interface with Streamlit and deployed on GCP via LangServe, enabling seamless internal use by 10+ employees

Freelance Project Matching System (Elancer Co.)

Apr. 2023 - Dec. 2023

- Processed resumes and job postings with **RoBERTa embeddings** and applied **Graph Neural Networks** to model freelancer-project relations
- Improved matching accuracy significantly, contributing to the client's service adoption

Calendar-based Schedule Recommender System (Samsung Electronics Co.)

Dec. 2022 - Apr. 2023

- Data collection and structural design for schedule recommendation system using content-based filtering
- Communicated with Samsung Electronics through the report paper and requested additional data needed to develop the system
- Proposed a data structure and BPR-MF and RNN-based recommendation algorithms for a plan recommendation system

DRAM Workload Classification Interpretation Model (Samsung Electronics Co.)

July 2022 - Dec. 2022

- Extracted interpretable features from workloads in DRAM for Samsung Electronics and trained an interpretable model of the black-box workload classification model
- A paper "Fast and Accurate Interpretation of Workload Classification Models" was accepted by PLOS ONE

YouTube Subtitles and Comments Analysis

March. 2021 - June 2021

- Term project for “Text and Opinion Mining” course
- Conducted LDA topic modeling of YouTube video subtitles, categorized video comment topics, identified preferred topics by sentiment analysis, and summarized comment content using the TextRank algorithm

University-industry Cooperation (NHN KCP Co.)

Sept. 2020 - May. 2021

- Made an OTT website using Python, Django, and Javascript, collected web log data in a database, and analyzed users’ usage patterns
- Designed a dynamic menu structure using a route prediction method based on user similarity and a recommender system
- A short paper was accepted by KCC2021 as a co-author

Fake News Detections Algorithms project (Hosted by NH Investment & Securities)

Oct. 2020 - Jan. 2021

- Advanced to the final in ‘NH Investment & Securities Big Data Competition’
- Analyzed(EDA) given news data, processed and transformed text data, studied and built deep learning model for classification (Logistic Regression, RNN, CNN, etc.)
- Studied Transformer model by reading related papers, applied pre-trained Bert model

Review-based Product Information Platform

Aug. 2020 - Nov. 2020

- Won 1st prize worth approximately USD 3,000 in the K-STARTUP 2020 STUDENT LEAGUE mock crowdfunding competition and the 1st prize worth approximately USD 3,000 in the KVP 4th Demo Day competition
- Studied and applied Natural Language Processing (NLP) algorithms
- Performed sentiment analysis on laptops and food reviews, measured the similarity between words to produce a keyword relationship table, and predicted keyword scores by review and product

2020 Open Source Contribution

Aug. 2020 - Sept. 2020

- Won the Special Prize worth approximately USD 300 at the 2020 Open Source Contribution Conference and presented at the Datayanolja 2020 Conference
- Made an IOS speech-detection app with a pre-trained specific sound detection model that used Tensorflow Lite
- Reviewed Korean-English translation of “TinyML” by Yunho Maeng and posted use cases on GitHub (<https://github.com/yunho0130/tensorflow-lite>)

Patent

2024 **10-2024-0001156**, Multi-Behavior Sequence-Aware Recommendation Method and Apparatus via Graph Convolution Network
Doyeon Kim, Saurav Tanwar, U Kang

South Korea

Awards and Honors

AWARDS

2023	3rd Place , Monthly Dacon Emotion Recognition AI Competition	DACON
2021	Dean’s List , for Academic Excellence	Kwangwoon University
2020	1st Place , K-STARTUP 2020 STUDENT LEAGUE Mock Crowdfunding Competition	Korea Enterprise Foundation
2020	1st Place , 4th KHU Valley Program(KVP)	Kyunghee University
2020	Dean’s List , for Academic Excellence	Kwangwoon University
2020	Special Prize , 2020 Open Source Contribution Conference	Ministry of Science and ICT

HONORS

2022	AI Fellowship , excellence in artificial intelligence	Seoul National University
2021	Semester High Honors , high achievements throughout the semester	Kwangwoon University
2021	Software Excellence Scholarships , excellence in software design	Kwangwoon University
2019	English Excellence Scholarships , excellence in English	Kwangwoon University
2018	Admission Scholarships , excellent admission qualifications	Kwangwoon University

Extracurricular Activity

Teaching

Oct. 2022, Mar. 2023, Sept. 2023

- Helped teach data science (10th, 11th) to Samsung Electronics employees
- Served as a teaching assistant for undergraduate “Data Structure” class (M1522.000900)
- Taught Woori Bank employees about database management

Algorithm Study Group

Feb. 2021 - June 2021

- Recruited other students from my department to review data structure and algorithm and select a suitable algorithm book
- Prepared coding tests for IT companies using Baekjoon Online Judge and Programmers websites
- Created a team Github repository where we uploaded and reviewed each other’s code

International Students Mentoring Program

Mar. 2019 - July 2019

- Mentored a foreign student about school life, including the use of on-campus facilities
- Planned extra activities about life in Seoul, including how to use cultural facilities, open a bank account, etc.

Skills

Programming	Python, R, C, Java, MySQL, Android, Swift
Deep Learning	Pytorch, Keras, Tensorflow
Data Analysis	Numpy, Pandas, scikit-learn, Matplotlib, Tableau
Languages	Korean (native), English (fluent), Chinese (intermediate)