# Jeehong Kim

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#### RESEARCH INTEREST

**Graph Neural Network** My primary focus is to enhance the performance of GNN models by modifying the information flow of graphs.

• Keywords: Graph Anomaly Detection, Graph Rewiring, Heterophilous Graphs

#### **EDUCATION**

Korea University, Bachelor's Degree in Industrial Management Engineering

Mar 2019 – Feb 2023

Seoul National University, MS-Ph.D. Integrated Course in Data Science

Mar 2023 – Current

#### **WORK EXPERIENCE**

Lab Intern, AIDA (Artificial Intelligence & Data Analytics) - Korea University

May 2021 - Jan 2022

- Paper Reviews on: 'GAN', 'Anomaly Detection', 'Transformer'
- Solved anomaly detection task on speech data using mel-spectrogram
- Attended 'HAICON' as an extension of anomaly detection task
  - Advisor: Prof. Sungwon Han

Lab Intern, DSAIL (Data Science & Artificial Intelligence) - KAIST

June 2022 - Aug 2022

- Paper reviews and model implementations on: 'Graph', and 'Recommendation System'
  - Advisor: Prof. Chanyoung Park

#### AWARDS & SCHOLARSHIPS

Data Visualization Competition, Korea University, Yonsei University, Intel

Aug 2021

- Received grand prize
- Visualized the relationship between the patient and their deductible premium
- Tools Used: Power BI, Python

**Industrial Engineering Project Competition**, Korean Institute of Industrial Engineers

Oct 2021

- Participation award
- Topic: Designing Dynamic Corridor Network of K-UAM using A-star Algorithm

HAICON2021, Korea Institute of Information Security & Cryptology

Nov 2021

- Built an AI model for detecting security threats in industrial control systems (Time series anomaly detection)
- Ranked 6th among 177 participating teams
- Tools used: Pytorch, Tensorflow

## Veritas Scholarship, Korea University

Feb 2022

- Research on the detection of anomalies in the manufacturing process
  - Advisor: Prof. Sungwon Han

### **Projects**

#### Visualization for Ship Collision Risk Assessment

Mar 2024 - Present

- Collaboration with Korea Research Institute of Ships & Ocean Engineering (KRISO)
- Developed a visualization system 'FURIOUS: Fully Unified Risk-assessment with Interactive Operational User System for vessels'.

## Extracurricular

Samsung Dream Class, Math and English Tutoring

Sep 2021 – Feb 2022

• Taught middle school students math and English

## Korea-China Leadership Program

July 2019 – Aug 2019

• Hosted by KFAS (Korea Foundation for Advanced Studies)

## **Skills and Attributes**

Personality: Energetic, Flexible, Responsible, Challenging, Cooperative

**Abilities:** Bi-lingual, Programming, English Speaking **English:** TOEFL (112), TOEIC (980), TEPS (510)

Programming: Python, Pytorch, Deep Graph Library (DGL), Pytorch-Geometric