Sumin Baek

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location : Busan, Korea

Education

Dong-A University(DAU), Busan, Korea — March 2021 - Present
Artificial Intelligence

Research Experience

DAU Data Science Labs — December 2021 - Present
Undergraduate Research Intern

- Conducting and assisting research with Prof.Jungkyu Han and Prof.Sejin Chun
- Published some paper that named Handling Missing Data with Graph Representation Learning

Activities

AI and Big Data Practical Training — October 2021 - December 2021

- Analyzed Knowledge Graph-based data and Domain Knowledge modeling
- Predicted values by regressing the public data (Machine Learning)

AI theory and practice using Python — June 2022 - August 2022

- Basic theories of energy and power, Concepts and Big data analysis, and power energy prediction

AI Big Data Grand Challenge Education — June 2023 - August 2023

- Basic theory and formula for reinforcement learning based on reward training, MDP (Markov Decision Process), Bellman expectation equation, Bellman optimal equation
- Object recognition and object classification using drones

Award

MOTIE Open Data-Based Business Idea Competition (Development) — August 2022
Achievement : *Encouragement Award*

- Developed and presented Electricity bill that how much energy you use and when you use it
- Created a customer database to connect server and resulting in calculation Time of use plan

Donga Univ. Dev Day Competition (idea planning) — August 2023
Achievement : *Track Grand Award*

- In collaboration with the Department of Electrical Engineering, we presented an idea plan on the topic of net-zero that the campus lecture scheduling through real-time tracking of carbon footprints.

Presentation

Handling Missing Data — February 2022

- Defined Missing data domains and classification according to the cause of missing values

- Introduced to the solve Model that use Mean and Multivariate Imputation by chained equations

RNN-Based Data Interpolation Reliable TOU plan Service August 2022

- Announced the recurrent neural network model used for energy/power big data analysis through the grand challenge

Towards Missing Electric power data Imputation for energy management systems September 2022

- Presented to use missing data that Linear Interpolation and support vector regression method

Major Skills

Programming : Python, C, C++, Latex
ML/DL : PyTorch, Scikit-Learn
Data skill : SQL, GraphDB, Numpy, Pandas, Matplotlib
SW Dev : Flask, MongoDB

References

Prof. Jungkyu Han
- Professor at DAU, Dept. of Computer Science and Artificial Intelligence
- Email:jkhan@dau.ac.kr

Prof. Sejin Chun
- Professor at DAU, Dept. of Computer Science and Artificial Intelligence
- Email:sjchun@dau.ac.kr