DONGHWA KIM

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EDUCATION

Seoul National University   Mar. 2016 – Feb. 2022
Bachelor of Science in Physics and Astronomy   Seoul, Korea

- **Graduation Paper**: Black Hole Mass Estimation of H-Alpha Broad Emssion Line (Advisor : Prof.Jong-Hak Woo)

EXPERIENCE

SETsystem   Sep. 2021 – Dec. 2021
AI Research Intern   Seoul, Korea

- Surveyed SOTA models for object detection and semantic segmentation to detect ship&wave on radar map
- Substituted much simpler and intuitive U-Net model for the previous Mask R-CNN model
- Improved the performance over 1% in the metric of mIoU

Massive Black Hole Lab.   Jun. 2020 – Aug. 2020
Undergraduate Research Intern   Seoul, Korea

- Estimated black hole mass and verified the significance of a follow-up study on the subject
- Suggested conditions to obtain black hole mass in a future study by analyzing the cases of failure

PROJECTS

Lyric Similarity-based Music Recommendation   Sep. 2021 – Dec. 2021
Data Mining Course

- Constructed an LDA model that performs clustering based on the similarity in lyrics
- Conducted hyperparameters tuning and examined the result

DACON : Parking Demand Prediction   Jul. 2021 – Aug. 2021
Likelion AI School

- Built ML model that predicts the number of parking required in an apartment complex
- Led the team and achieved the main contribution of the project on github

Burger Index   June. 2021 – Jul. 2021
Likelion AI School

- Analyzed the correlation between burger index and urban development index
- Deduced insights into expansion of BurgerKing stores
- Led the team and achieved the main contribution of the project on github

RELEVANT COURSEWORK

Courses   Mar. 2016 – Dec. 2021
Completed

- Mathematics :Linear Algebra, Mathematical Methods for Industrial and Management Engineering
- Programming : Programming Practice, Computational Astronomy, Computational Physics
- Data : Data Mining
- Seminar : Special Lecture on Data Science, Seminar on AI Core Technology and Applications

K-Digital Training Likelion AI School   May. 2021 – Aug. 2021
Certificated

SKILLS

Languages : Python, C++, HTML/CSS, SQL
Python Libraries : Pytorch, Scikit-learn, Numpy, Pandas

(last updated : 2021.12.22)