

Minseong Bae | Curriculum Vitae

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🔗 KyleBae1017

Education

Busan Science High School

Busan, South Korea

2018-2020

Korea University

Seoul, South Korea

College of Informatics, Dept. of Computer Science & Engineering

2021-Current

- (Plan) Double Major : Dept. of Mathematics
- GPA : 4.50/4.50

Interests

Computer Science

- Machine Learning / Deep Learning : Computer Vision, Natural Language Processing
- Data Science
- Problem Solving

Mathematics

- Linear Algebra & Abstract Algebra
- Discrete Mathematics & Graph Theory
- Number Theory
- Cryptography

Projects

Epitope prediction in allergens using PPI prediction model

2019

- Team project with 3 students
- Data Preprocessing with Stanford SNAP Yeast PPI data
- Model based on scikit-learn, Tensorflow, Keras
- Full explanation on Github
- Awarded 2019 R&E Academic Presentation Contest
- Awarded 14th KSCY Excellent Youth Scholars Award in Computer Engineering Session

Transformation of Non-Linear Activation Functions to Linear by Taylor Approximation

2020

- Approximation of non-Linear activation functions with Taylor Approximation and application to neural networks
- Accuracy is maintained or even enhanced with approximated functions
- Full explanation on Github

User-Friendly Tour Course Maker for Gyeongju

2019

- Team project with 3 students
- Using our own modified Dijkstra Algorithm to satisfy all conditions required by user
- Selected as Excellent Project for 2019 Science Project Competition on high school

Awards

2018 I&D Academic Presentation Award - 3rd

2018

- Development of Remotely Operated Underwater Robot of Collaborative Robot for Ship Salvage

2019 R&E Academic Presentation Award - 3rd

2019

- Epitope prediction in allergens using PPI prediction model

14th KSCY Excellent Youth Scholars Award

2019

- In Computer Engineering Session
- Epitope prediction in allergens using PPI prediction model

36th Seoul National University Data Mining Camp - 2nd

2019

5th Super Computing Youth Camp by KISTI & UNIST - 2nd

2019

Courseworks

Math for Computer Science 1 (Prof. Seungryong Kim)

2021

- Basic Linear Algebra
- #1 on Final Exam

Data Science & Artificial Intelligence

2021

- Basic Theory of DS&AI, Social insight for DS project
- My Final Project (1) :
Shooting Prediction in Basketball with NBA shooting data with Logistic Regression and Random Forest
- My Final Project (2) :
Devising CI(Connectivity Index) of basketball teams by pass data with application of Graph Theory
- Full explanation on Github

Skills

- **Programming Languages:** Python, C, C++, R
- **Libraries & Tools:** Tensorflow, Keras, scikit-learn, Linux
- **Languages:** Native in Korean, Conversational in English

Extracurricular Activities

Leader for Korea University Computer Science Academy

Planned : 2021 Sep -

- Various Studies and Projects about Computer Science

Member for ALPS

2021-Current

- Studying Problem Solving and Algorithms

Completed Yonsei University-Naver Cloud Data Science Education Course

2021

- All course with Python, Basic theory and exercise with code
- Basic ML Algorithms : Linear Regression, Decision Tree, Logistic Regression
- Artificial Neural Networks & Deep Learning(CNN, RNN, Q-learning), Random Forest, SVM
- Text Mining & NLP