

# Minseong Bae | Curriculum Vitae

✉ bms2002@korea.ac.kr

🔗 KyleBae1017

## Education

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**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 (for 4 semesters)

## Interests

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### Computer Science

- Machine Learning / Deep Learning
  - : Graph Neural Networks, Safe AI (Adversarial Attack / Defense), Generative Models
- Programming Language
- Problem Solving

### Mathematics

- Mathematics for ML/DL/Computer Science
- Algebra, Discrete Mathematics & Graph Theory, Number Theory

## Projects

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### Epitope prediction in allergens using PPI prediction model

*2019*

- Data Preprocessing with Stanford SNAP Yeast PPI data
- Modeling based on scikit-learn, Tensorflow, Keras
- Awarded 2019 R&E Academic Presentation Contest
- Awarded 14th KSCY Excellent Youth Scholars Award in Computer Engineering Session

### Prediction of Successful Shooting and Connectivity Index of Team Network in Basketball

*2022*

- Predicting whether shooting is successful or not with NBA shooting data using machine learning techniques
- Visualization of team network and devising connectivity index of team with NBA game pass data

## Awards

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### 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*

Dean's Award

2021 Spring

President's Award

2021 Fall, 2022 Spring, 2022 Fall

## Courseworks

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### Computer Science

- Data Structure (2021-2)
- Algorithms (2021-2)
- Artificial Intelligence (2022-1)
- Theory of Computation (2022-1)
- Discrete Mathematics (2022-1)
- Logic Design (2022-1)
- Programming Language (2022-2)
- Information Security (2022-2)
- Computer Architecture (2022-2)
- Deep Learning (2022-2)
- Machine Learning (2022-2)

### Mathematics

- Calculus I (2022-1)
- Number Theory (2022-1)
- Set Theory (2022-2)

## Skills

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

## Extracurricular Activities

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### Leader for Korea University Computer Science Academy

2021 Sep-Current

- Various Studies and Projects about Computer Science
- Working as Instructor for Linear Algebra / Probability & Statistics studies

### Co-Founder of AIKU; AI in KU

2022 Sep-Current

- AI academic society for Korea University undergraduate students
- Participating in NLP team and working as administrator

### Undergraduate Intern in MLV Lab of Prof. Hyunwoo J. Kim

2022 Jul-Current

- Undergraduate Intern for Korea University MLV Lab (<https://www.hyunwoojkim.com/>)
- Studying Graph Neural Networks, Machine Learning

### Completed Yonsei University-Naver Cloud Data Science Education Course

2021

- Basic ML Algorithms : Linear Regression, Decision Tree, Logistic Regression, Random Forest, SVM
- Artificial Neural Networks & Deep Learning(CNN, RNN, Q-learning), Text Mining & NLP