JUSUNG LEE

Undergraduate Student

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SUMMARY

I am a undergraduate student with a strong desire to harness the potential of artificial intelligence for the advancement and improvement of our global society.

SKILLS

Languages: Python, C++, C, AVR Microcontroller Programming

Libraries: Pytorch, Tensorflow, Pandas, scikit-learn, Keras

EDUCATION

2019- **Kumoh National Institute of Technology (KIT)** — **University**
The Department of Electronic Engineering
GPA: 3.27/4.5
GPA(Major): 3.75/4.5

RESEARCH INTEREST

Computer Vision **Object Detection**
Object detection in real time, Object detection for robot

Computer Vision **Image Generaton**
2D Image Generagtion, 3D Image Generaton

Computer Vision **Semantic Segmentation**
Video Semantic Segmentation, Image Semantic Segmentation, 3D Semantic Segmentation

PROJECTS

Jan–Feb 2023 **Image Classification Project** — **KIT AISL LAB**
•For research and development of CNN models, I developed a multi-class classification CNN model using the Cifar-10 dataset, which achieved 90.8% training accuracy and 85.4% test accuracy

Apr–Jun 2023 **Emotional(sentiment) classification project using Musinsa data** — **KIT OOP**
• In this project, our team achieved first-place position
• We designed an LSTM model and achieved an accuracy of 95.6%.

Jul- Aug 2023 **Summarize news and abstract keyword project** — **KIT SIG**
• The dataset used the Naver Developer API to use the headline news source data
• The sentence transformer model was used as the model used in keyword extraction
• the keyword was extracted by category using the max sum similarity algorithm

Sep– Oct 2023 **Image Colorization using GAN** — **Meatcode**
• It followed the principles outlined in the pix2pix research paper.
• The dataset employed in this project was the COCO dataset

ON GOING PROJECTS

Object Detecton **Library librarian robot to help librarians** — **KIT**
• This project aims to develop a self driving robot designed to support Additionally, it offers assistance to library patrons, including guiding them to the specific locations of books within the library
• The robot used in the project is Transbot and the module used is NVIDIA Jetson orin NX.

Object Detecton **Robots for dealing with obstacles around Braille blocks for the visually impaired for blind people** — **KIT**
• The robot used in the project is Transbot and the module used is NVIDIA Jetson orin NX.
• The AI used Yolo v7 and will re-learn data on Braille blocks for the visually impaired and rides such as electric kickboards.

EXPERIENCE

Dec2022–Feb2023 **AISL LAB** — **Undergraduate Research Student**
- developed a classification network
- received in-depth instruction in deep learning from both master's and doctoral students

Aug 2023 - **CVPR LAB** **Undergraduate Research Student**

- Review of the latest papers and implement models based on thesis
- Presentation activities after studying the basics of probability and statistics, linear algebra, and artificial intelligence

Sep 2023- **METACODE** **The management of the society**

- The management of the Big Data and Artificial Intelligence Society
- Intern in management and consulting planning of the society

QUALIFICATIONS

- JLPT N2

ADDITIONAL INFORMATION

Nov 10-Nov 12 2022 **Meta Code Machine Learning Course 2**
• Lectures covering the fundamentals of machine learning, model implementation, and training

Dec 23-Jan 18 2023 **Fast Campus Deep Learning LEVEL RUN**
• A lecture directly focusing on the implementation of deep learning models for 2D or 3D object detection, as well as 2D or 3D image classification.

Jun 24-Jun 25 2023 **Meta Code PYTHON STUDY**
• A lecture that encompasses programming and essential libraries for deep learning, including Python, Pandas, and Keras

Jul 12-Jul 14 2023 **IDEC Deep Learning Foundation and Design**
• A lecture aimed at facilitating comprehension and the design of the structure and principles underlying deep learning

Sep 2023-Oct 2023 **Meta Code GAN implementation**
• A lecture focused on comprehending GAN and the hands-on design and implementation of GAN models

SCHOLARSHIP AWARD HISTORY

2022-2023 **National Science & Technology Scholarship from Korea Student Aid Foundation**
excellent grades

2022-2023 **Academic Excellence Scholarship from KIT**
Higher grades compared to the previous semester

CLUB ACTIVITIES

2019-2022 **Kumoh Golden Ravens**
• 2019 and 2022 Daegu Gyeongbuk National University Spring American Football League 2019 Fall League 2nd place
• 2022 Fall League 3nd place
• 2019 National University American Football League Quarterfinals, 2022 National University League 2nd place