

EDUCATION

Sejong University

Department of Mobile Vehicle Engineering, Department of Intelligent Mechanical Engineering

Gwangjin, KR

Feb 2017 - Present

- Relevant Modules: Computer Structure and Operating System, Image Processing, Automatic Control, Machine Learning, Artificial Intelligence, Deep Learning System, Machine Vision System)

UM International Exchange Program

Foreign Exchange Student

University of Malaya

Jul 2017 – Sept 2017

- Underwent an English test and interview to be qualified to participate in the cultural exchange program
- Realized the joy of volunteering, communicating, and learning with friends of various nationalities
- Experienced the difference in cultures and learned ways to adapt to communicate besides just language
- Participated in a Debate Contest and came in second place and received an 'excellence award'

Geochang High School

High School

Geochang, KR

Aug 2013 – Feb 2016

- High School was famous for being the 'school without fences'

RESEARCH EXPERIENCE

Sejong RCV Undergraduate Research Program

Undergraduate Researcher

Sejong University

Jul 2021 – Sep 2021

- Got familiar with the 'SSD (Single Multibox Detector) Thesis'
- Performed various experiments were conducted to devise a method to improve the Pedestrian Detection performance
- Learned deep learning algorithms and improved code writing skills
- Practiced using the 'Camera Grabber' and learned how to acquire RGB and Infrared images simultaneously using a stereo camera
- Performed annotation work to construct pedestrian data of 'Camera Grabber' using MATLAB's calibration tool and created a bounding box
- Read the 'Adaptive NMS' paper and tried to increase the performance of the SSD300 model by applying the scenario of "no published code"
- Implemented the newly learned theory into the code and gained confidence
- Mastered pipeline of machine learning algorithms like task selection, data acquisition and processing, model selection and application, and Jatson Nano boards/cameras
- Maintained a good relationship with team members during Hackathon and won a gold medal

"Improving the Unmanned Store Management System"

Model Team Member

Sejong University

Aug 2021 – Dec 2021

- Worked on a creative semester project on 'improving the unmanned store management system' under the guidance of Professor Dongil Han of Sejong University
- The unmanned store management system consisted of 4 people: 1 front-end, 1 back-end, and 2 models
- Was responsible for data acquisition and processing and object detection tasks
- Acquired Lotte Information Communication product image through 'AI Hub' and wrote a synthesis pre-processing code to obtain an image like the image shot at the checkout counter
- Various data pre-processing is performed to make images taken in a controlled environment with a single image like those taken at the checkout counter
- Learned about the effect of data processing on the model and improved pre-processing capabilities related to image processing (synthesis of images of more than 1000 classes considering occlusion using IOU)
- Got familiar with the model theory such as YOLO V5 and Efficient net and improved performance by detecting and classifying tasks separately
- Improved the ability to work with front and back-end developers and learned more about servers
- Experienced the process of which artificial intelligence algorithms are applied

LEADERSHIP & EXTRACURRICULAR ACTIVITIES

2nd Division Reconnaissance Battalion and Signal Service

Recruit

Gangwon-do, KR

Mar 2018 – Oct 2019

- Received the Army Chief of Staff Award
- Developed a strong military spirit and learned the basics of combat
- Completed military service with patience and perseverance and participated as a member of the 'Search Team' in the Elite Team of Combatants (300 warriors are selected)
- Cultivated courage and tenacity to overcome any adversity through this harsh environment

Computer Science Academic Club 'Interface'*Captain & Member***University of Malaya****Mar 2017 – Feb 2018**

- Organized various events and activities to make the club an enjoyable environment for the other club members
 - Separated responsibilities between private and public affairs and handled accounting and HR work
 - As captain, held the record for having the most prominent participating members in the history of the club
 - Participated in 'Foundation Festival' and 'Programming Exhibition'
 - Learned about strong leadership and how to engage other members with sincerity and harmony
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