

Education

Seoul National University

Bachelor of Industrial Engineering

Seoul, Korea

Mar 2017 – Expected Mar 2023

- Cumulative GPA: 3.77/4.3; Major GPA: 3.71/4.3
- Double major in Computer Science and Engineering, Double Major GPA: 3.79/4.3
- Related Coursework: Discrete Mathematics, Computer Programming, Data Structures, Algorithms, Logic Design, Computer Architecture, Introduction to Data Mining, Data Mining, Data Management and Analysis, Digital Computer Concept and Practice, Introduction to Computing for Industrial Engineering, Calculus 1 & 2, Engineering Mathematics 1 & 2, Statistics, Statistics Lab, Statistics for Industrial Engineering, Simulation, Electrical and Electronic Circuits, Topics in Artificial Intelligence: 3D Computer Vision

Korean Minjok Leadership Academy

High School

Gangwon, Korea

Mar 2014 –Feb 2017

- Extensive education experience on diverse fields: Computer programming (Java), Chemistry, Biology, Physics, Microeconomics, Macroeconomics, etc.
- Conducted several individual research on basic algorithms of artificial intelligence, neural networks, simple CNNs and autoencoders along with studies on programming languages
- Graduated Magna Cum Laude

Research Interest

- With deep interest in the wide applications deep learning algorithms can be used, and its ability to solve the previously unsolved problems, conclusively, I desire to change people's lifestyle dramatically by forming an AI system that could behave like humans or even surpass us. For this, I am currently working on experiencing various state-of-the-art deep learning models in numerous areas, trying to understand, implement and improve them, hoping one day I could create new models in such areas.

Experience

Global Technology Center, Samsung Electronics

Internship

Seoul, Korea

Jul 2021 –Aug 2021

- Implemented unsupervised anomaly detection in natural image data based on deep architectures such as convolutional autoencoders and feature descriptors using pretrained convolutional neural networks
- Implemented and tested many variations of autoencoders to achieve higher system performance and attained 10% higher accuracy score compared to the referenced paper
- Implemented a patch distribution modeling framework for anomaly detection and localization which makes use of a pretrained network for patch embedding, and of multivariate Gaussian distributions to get a probabilistic representation of the normal class

Republic of Korea Army

Auxiliary Police

Daejeon Seobu Police Station

Aug 2019 –Mar 2021

- Developed a program to automatically create military vacation schedule table from data which previously was all manually written by hand
- Automated repeated daily paper works using handwritten letters and digits recognition algorithms

Individual Studies on Deep Learning/Machine Learning

Seoul, Korea

Mar 2017 – June 2022

- Implemented from scratch various machine learning models on diverse fields, such as images, texts, generations and reinforcement learnings with reference to honored papers and machine learning frameworks' official guides
- Implemented from scratch Q-learning, Sarsa, DQN, DDQN, A3C, A2C with reference to the book, "Introduction to Reinforcement Learning / Deep Reinforcement Learning using PyTorch"
- Currently tried to implement reflectance aware generative radiance fields based on NeRF(Neural Radiance Fields for View Synthesis) and pi-GAN(Periodic Implicit Generative Adversarial Networks for 3D-Aware Image Synthesis)

ADDITIONAL INFORMATION

Languages: Korean (native), English (New TEPS 520, TOEFL 110 - Expired)

Skills: Proficient in C, C++, Java, Python, R, MS Office Programs
Competent in Machine Learning Frameworks (Tensorflow, PyTorch)
Novice in JavaScript, MySQL, Android Application Programming