Kwangho **Lee**

Machine Learning/Depp Learning Engineer · Data Engineer
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Education

UNIST(Ulsan National Institute of Science and Technology)
Ulsan, S.Korea

B.S in Electrical and Computer Engineering
Mar. 2014 - Aug. 2019

- Specialized in Computer Science and Engineering
- Minored in Human Factors Engineering

Experience

COMENTO : SQL bootcamp
Incheon, S.Korea

Intern
Apr. 2020 - May. 2020

- Study the process of data extraction request and processing in real world.
- Practice to extract and update queried data using SQL (Oracle).
- **Certificate (click)**

ModuLABS Flipped School (OCR)
Seoul, S.Korea

Member
Jul. 2019 - Sep. 2019

- Discussed and reviewed how the deep learning applied on OCR and the overall research flow.
- Presented the RCNN, Fast-RCNN, Fater-RCNN, and Mask-RCNN and related research.
- **Presentation (click)**

ModuLABS Flipped School (Paper Reviewing)
Seoul, S.Korea

Member
Jul. 2019 - Sep. 2019

- Read trendy deep learning papers(e.g. BERT, GPT, Arbitrary Style Transfer, etc.) and discussed together.
- Summarized and shared the papers in korean with related theory.

UNIST Science Walden (Prof. Jongeun Lee)
Ulsan, S.Korea

Undergraduate Researcher
Dec. 2018 - Jun. 2019

- Researched the relationship between music and emotions.
- Discovered the latent features of emotions and visualized in Valence-Arousal dimension.
- Developed a VGG-based model for research purposes using Tensorflow.
- Organized and pre-processed wav data to train the model.
- **Musemo Demo sounds embedded in .pptx (click)**

UNIST Isystems LAB (Prof. Seungchul Lee)
Ulsan, S.Korea

Research Assistant
May. 2017 - Dec. 2017

- Organized development environment for deep learning.
- Implemented Seq2Seq model with MNIST for RNN tutorial.
- Implemented Machine Learning and matrix calculation package using C#.
- Managed HSE545 : Machine Learning at UNIST as a Teaching Assistant.
- Provided lecture about RNN at Hanwha Techwin as an instructor.

UNIST Machine Learning & Visual Recognition LAB (Prof. Sungju Hwang)
Ulsan, S.Korea

Undergraduate Intern
Mar. 2016 - Dec. 2016

- Collected and pre-processed text data for interactive artificial intelligence research.
- Annotated data for Auto-Mobile research.
- Implemented AR using Unity and Vuforia API for glasses.

HeXA (Computer Study Club in UNIST)
Ulsan, S.Korea

Member
Mar. 2014 - Present

- Studied C++ together.
- Developed shooting game using GameMaker Studio.
- Organized AI study materials and taught Machine Learning and Deep Leanring to juniors.
- **ML & DL Study (click)**

Projects

Rise of Kingdoms OCR

May. 2020 - Present

- Developing program to help managing about member's power in Rise of Kingdoms game.
- Implemented using Python, OpenCV, Tesseract and Nox App Player.
- The program automatically find the all members in a alliance and capture profiles. After capturing, it does OCR about ID, power and etc. And it converts the result of OCR to Excel.(i.e. file.xlsx)
- **Github (click)**

KP-Means

Jul. 2019

- Developed algorithm using K-Means to extract point color of image. (especially for clothes)

Musemo

Dec. 2018 - Jun. 2019

- Researched the relationship between music and emotions at Science Walden.
- Developed a VGG-based model for research purposes using Tensorflow.
- Organized and pre-processed CAL500 data to learn the model.
- **Musemo Demo sounds embedded in .pptx (click)**

Imitation PID Control

Dec. 2017

- Implemented Q-learning using Python and Arduino to control the propeller as imitating PID Control.

RNN tutorial with Seq2Seq

Nov. 2017

- Implemented Seq2Seq model with MNIST for RNN tutorial.
- The model could generate next row of the image sequentially.
- **Github (click)**

GAN

Oct. 2017

- Implemented the following paper : "Generative Adversarial Nets" using Tensorflow.
- **Github (click)**

QNT

Aug. 2017 - Oct. 2017

- Implemented machine learning and matrix calculation package using C#.

Style Transfer

Sep. 2017

- Implemented the following paper: "A Neural Algorithm of Artistic Style" using TensorFlow.
- **Github (click)**

Uglass

Apr. 2016 - Aug. 2016

- Implemented AR using Unity and Vuforia API for glasses.

Teaching Experience

2019-Spring	HeXA AI Study	*Study Leader*
2017-Nov	Hanwha Techwin AI Class	*Instructor*
2017-Aug	CAE & Applied Mechanics Summer Class	*Teaching Assistant*
2017-Fall	HSE545: Machine Learning	*Teaching Assistant*

Skills

Knowledge	Machine Learning, Deep Learining
Programing	Python, C/C++, SQL, TensorFlow, NumPy, MatPlotlib
Language	Korean(Native), English(Advanced)