

## 56 Woninjae-ro, Yeonsu-gu, Incheon, Republic of Korea

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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 Apr. 2020 - May. 2020

INTERN

MEMBER

- 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

Jul. 2019 - Sep. 2019

MEMBER

- 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

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 learn 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 Mar. 2016 - Dec. 2016

Undergraduate Intern

- 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

- 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)

#### Mar. 2014 - Present

# **Projects**

**KP-Means** Jul. 2019

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

KWANGHO LEE · RÉSUMÉ MARCH 31, 2020

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-SpringHeXA AI StudyStudy Leader2017-NovHanwha Techwin AI ClassInstructor2017-AugCAE & Applied Mechanics Summer ClassTeaching Assistant2017-FallHSE545: Machine LearningTeaching Assistant

## **Skills**\_

**Knowledge** Machine Learning, Deep Learining

**Programing** Python, C/C++, SQL, TensorFlow, NumPy, MatPlotlib

**Language** Korean(Native), English(Advanced)