

Ikhee Shin

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INTERESTS

Natural Language Processing, Computer Vision, Signal Processing, Machine Learning, Deep Learning

EDUCATION

University of Michigan <i>M.S. Electrical and Computer Engineering</i>	Aug. 2021 – May 2023 (expected) Ann Arbor, MI
Yonsei University <i>B.S. Electrical and Electronic Engineering</i>	Mar. 2013 – Aug. 2019 Seoul, Korea

WORK EXPERIENCE

Samsung Research <i>Research Engineer, Natural Language Processing Lab</i> <ul style="list-style-type: none">• On-device Natural Language Understanding Service <i>C++, Java, Python, TensorFlow</i><ul style="list-style-type: none">* Developed the C++ based app for Samsung Research's on-device natural language understanding service* Developed the on-device model preparation pipeline for quantized model and model resources* Cooperated with the overseas branch of Samsung Research (America) to train and compress models for two languages (e.g. Korean, English)• Dialogue State Tracking Research and Development <i>Python, Keras, Flask</i><ul style="list-style-type: none">* Developed the baseline pre-processing and training code for experiments with span-based dialogue state tracking models* Applied data augmentation and multi-task learning techniques to overcome data sparsity problems* Maintained and co-designed data format and data collection strategy	Aug. 2019 – July 2021 Seoul, Korea
NAVER Co. <i>Clova Machine Learning Intern, NAVER Clova AI Research</i> <ul style="list-style-type: none">• Animation Character Recommendation System <i>Python, PyTorch, Flask</i><ul style="list-style-type: none">* Developed the app that given face images, extracts face attributes, and recommends animation character with common attributes* Implemented the state-of-the-art multi-label classification models and metric learning (e.g. contrastive, triplet) for face attributes classification	July 2018 – Aug. 2018 Seongnam, Korea
NAVER Co. <i>Clova Multimedia Intern, NAVER Clova AI Research</i> <ul style="list-style-type: none">• Text-to-Video Development <i>Python, PyTorch</i><ul style="list-style-type: none">* Developed the baseline pre-processing and training code for the text-to-video model* Implemented the state-of-the-art models (e.g. Obamanet) and applied it to internal data	Jan. 2018 – June 2018 Seongnam, Korea
Republic of Korea Air Force <i>Sergeant, Ground Operation Center</i> <ul style="list-style-type: none">• Cooperated with Air Defense Artillery to protect the force and selected geopolitical assets from aerial attack	Feb. 2014 – Feb. 2016 Seosan, Korea

RESEARCH EXPERIENCE

Digital Signal Processing and Artificial Intelligence Lab, Yonsei University <i>Undergraduate Research Assistant (Advisor: Professor Hong-Goo Kang)</i> <ul style="list-style-type: none">• Implemented music source separation based on U-Net style architecture, followed by improving the model by utilizing self/cross attention	Sept. 2018 – Dec. 2018 Seoul, Korea
Multimedia Security Lab, Yonsei University <i>Undergraduate Research Assistant (Advisor: Professor Andrew Beng Jin Teoh)</i> <ul style="list-style-type: none">• Developed the baseline training code for experiments with training varied generated models (e.g. GAN, VAE) for image generation• Applied GAN to semi-supervised Training	Aug. 2017 – Jan. 2018 Seoul, Korea

TECHNICAL SKILLS

Languages: Python, C/C++, Java
Libraries: TensorFlow, Keras, PyTorch
Frameworks: Flask, JMeter