Kibeom Nam

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Education

Hongik University Mar 2017 – Feb 2022
Bachelor of Art Studies (Major, 51 credits) *Seoul, Korea*

Hongik University Mar 2019 – Feb 2023
Bachelor of Data Science (Interdisciplinary Major, 45 credits) *Seoul, Korea*

Hongik University Mar 2019 – Feb 2023
Bachelor of Industrial and Data Engineering (Minor, 36 credits) *Seoul, Korea*

Hakik High School Feb 2016
Salutatorian

Internship

ETRI Intelligence Information Research Division | *AI Research intern* Jan 2023 – Mar 2023

- Technical report : Conducted inference speed up of RESTful API test code
  minDALL-E, GLIDE, SD(1.4, 2.1), Karlo refactoring, Asynchronous processing and Evaluation of T2I Toolkit (Flask, Streamlit, Asyncio, Dockerize)
- Domestic Conference : Identified difference of text-image alignment w/ diffusion prior
  DrawBench separation and transform (category, n./adj. , phr./SE)

KAIST Graduate School of CT Information Based Design Lab | *External intern* Jul 2022 – Dec 2022

- Conducted research proposal : Sementic embedding (TF-IDF, Word2Vec) of Crowd Opinions and Generative model (CLIP+VQGAN, StyleGAN) for Virtual museum

ETRI Content Research Division | *Research intern* Jan 2022 – Mar 2022

- Conducted statistical report, vgg19-based image processing in art appraisal domain

Hongik University EXID (user EXperience Innovation Design) Lab | *Research intern* Mar 2021 – Sep 2021

- Advisor : Kyungdoh Kim
  Conducted statistical model-based research (TAM, IDT, ANOVA) on HMD VR interface and content attribute

Publications

[1] **Korean Aspect-Based Sentiment Analysis via NLI-Based Pseudo-Classifier in Actual Domain**
The 10th International Conference on Social Networks Analysis, Management and Security (**SNAMS**), 2023
Ki-Beom Nam†, Joo-Sun Yum, **Accepted as Oral Presentation** (voluntary withdrawal)

[2] **A Comparative Study of Prompt form Based Text-to-Image Generation**
Korean Institute of Information Scientists and Engineers (KIISE) at, korea computer congress (**KCC**), 2023
Ki-Beom Nam, Young-Joo Jo, Sang-Hun Jeon, Yong-Ju Lee

[3] **KPC-cF: Korean Aspect-Based Sentiment Analysis via NLI-Based Pseudo-Classifier with Corpus Filtering**
The 38th Annual AAAI Conference on Artificial Intelligence (**AAAI-24 Workshop**), In preparation

Qualification

- Engineer Big Data Analyzation
- Advanced Data Analytics Semi-Professional(ADsP)

Awards and Honors

NEXPOT Service, Korea Tourism Organization and Kakao May 2022 – Aug 2022

- Finalist in the Tourism data utilization competition, Korean ABSA task using BERT-based model

Awarded the Best team in tutoring the major, participated as a mentor, Hongik Art Jul 2021

Projects

KPC-cF: Korean ABSA via NLI-Based Pseudo-Classifier with Corpus Filtering | *Pytorch* Nov 2023

- Kor-SemEval, KR3 Dataset construction and Fine-tuning
- BERT-single task vs BERT-pair task (NLI-M) (P-LM : BERT-multilingual, XLM-RoBERTa and Ensemble)
- Paper accepted on SNAMS 2023 (oral)
- Building a model to inject pseudo labels through threshold adjustment and LaBSE filtering
- Implementing t-SNE visualization code in NLI task to check the changes in feature similarity of KR3 test data based on (w/) pseudo labels

NEXPOT | *Django, JavaScript, CSS, mySQL, KakaoMap API, YouTube API, AWS, HuggingFace* Aug 2022

- Market research questionnaire : statistical analysis (R), visualization of main variables (Python)
  Chi square test, one-way ANOVA, correlation analysis and visualization (Seaborn based plot, heat map)
- API design, Extract proper nouns from YouTube API description, Database construction using RDS and responsive web prototype development
- Kakao Map review data : crolling, topic modeling (BERTopic) and Multi-label multi-class classification (M-BERT)
- Proposed cloud-based web serving, Our team was able to take 1st place team

Machine learning modeling with Bank data in kaggle | *Python, Scikit-learn* Mar 2021 – Jul 2021

- Data : Customer's term deposit subscription data in kaggle competition
- Problem definition : by EDA / binary classification
- Pre-processing : Remove missing and outliers, scaling and oversampling, Eliminate multicollinearity variables, and differences in labeling methods according to algorithms (logistic regression, tree-based)
- Model : Logistic Regression, Random Forest, LightGBM, and XGBoost
- Evaluation : Model selection in consideration of Precision, Recall, F1 score and ROC AUC
- Visualization : SHAP value-based feature importance visualization, Our team was able to take 1st place team

The Seoul Research Institute's data Analysis and Application | *Python, R* Mar 2021 – Jul 2021

- Data : Citizen's quality of life survey data
- method : Structural Equation and Multiple Regression analysis
- Derived a scenario for using public policies in Seoul, Our team was able to take 2nd place team

Autonomous vehicle accident damage prediction model | *TensorFlow* Mar 2021 – Jul 2021

- Data : Accident data of Autonomous vehicle in California
- Problem definition : Multi-label classification
- Function : sigmoid and binary cross-entropy
- Model : DNN (tuning hidden layer, epoch, and batch size)
- Evaluation : Accuracy and Loss

Graduation online exhibition curating, Click-scroll-zoom exhibition Jul 2020

Extra Activities

- Studing deep learning in Session Based Recommendation System (Apr 2022)
- ML summer class in Department of Computer Science and Engineering (July 2022)
  Experienced how the ML process that exists in packages (Turicreate) such as Gredient decent, Score, Negative log loss, Bayes, DT, Ensemble and CNN etc. operate
  I stand in 3rd grade out of 8 persons (B+)
  (Extra text : 1. grokking machine learning, Luis G. Serrano,
  2. An Introduction to Statistical Learning, Deisenroth, G. James et al.)
- External scholarships from Sudokwon landfill site management corporation, Korea (jul 2021)
- Completion of school winter vacation big data course education, Hongik university (sep 2019)
- Operation of exhibition curating clubs and aesthetic studies, Hongik university (2019-2020)
- Middle and high school mathematics private tutor (2017-2018)
- Student council representative and event committee, Hongik university (2017-2018)

Skills

Programming: Python, R, SQL, Java, LaTeX
Deep Learning: Pytorch, Colab (Advanced), Tensorflow, Keras, Huggingface (Intermediate)
Data analysis: Pandas, Numpy, Scikit-learn (Advanced)
Prototyping: Flask, Streamlit (Intermediate), DJango, MySQL, Docker (Basic)