# 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) & Industrial Engineering (Minor, 36)

Seoul, Korea

Hakik High School

Feb 2016 Salutatorian

#### Internship

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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)
- Identified difference of text-image alignment w/ diffusion prior, DrawBench transform (category, n./adj., phr./SE)

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• 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 report of statistical method, vgg19-based image processing in art appraisal domain

Hongik University 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

# 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<sup>†</sup>, Joo-Sun Yum, Accepted as Oral Presentation (voluntary withdrawal)

# 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

KPC-cF: Korean Aspect-Based Sentiment Analysis via NLI-Based Pseudo-Classifier with Corpus Filtering The 18th Conference of the European Chapter of the Association for Computational Linguistics (EACL), 2024 Ki-Beom Nam†, submitted

# QUALIFICATION

- Engineer Big Data Analyzation 🗹, Advanced Data Analytics Semi-Professional 🗹 (K-DATA)
- NLP with Classification and Vector Spaces Z, NLP with Probabilistic Models Z (DeepLearning.AI)

#### 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

# KPC-cF (ID / OOD / Scaling on non-English, low-resource language task) 🗹 | 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 NLI model to inject pseudo labels through threshold adjustment and LaBSE filtering
- Implementing t-SNE visualization code to check the changes in feature similarity of KR3 test data based on filtered pseudo NLI set, Extract embedding vector of KR3 test data (last hidden layer of KPC-cF)

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

- Certificate of Lecture in NAVER boostcamp AI Tech 6th (Sep 2023)
- 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)

**Language**: English (Intermediate) **Z**, Korean (Native)