

JUNGGEUN DO

✉ jg.do@tamu.edu  [dojunggeun](https://www.linkedin.com/in/dojunggeun)  [dojunggeun](https://github.com/dojunggeun)  junggeun.do

EDUCATION

Texas A&M University, College Station, Texas (expected) May 2027
MS in Computer Science

Seoul National University, Seoul, South Korea Aug 2024
BS in Physics; BA in Economics; Minor in Computer Science and Engineering

PUBLICATION

- [1] SEAL-pose: Enhancing 3D Human Pose Estimation via a Learned Loss for Structural Consistency
Yeonsung Kim*, **Junggeun Do***, Seunguk Do, Sangmin Kim, Jaesik Park, Jay-Yoon Lee
arXiv preprint ([earlier version](#) presented at ICCV 2025 Workshop SP4V)
- [2] ContrastiveMix: Overcoming Code-Mixing Dilemma in Cross-Lingual Transfer for Information Retrieval
Junggeun Do, Jaeseong Lee and Seung-won Hwang
NAACL 2024 (oral)

* Equal contribution

RESEARCH EXPERIENCE

Frontier Language AI Research Lab, Texas A&M University Nov 2025 – Present
Graduate Researcher (advisor: Kuan-Hao Huang)

- Investigating the mechanistic interpretability of open-weight LLMs to identify internal knowledge representations, ultimately improving multilingual factual recall and cross-lingual consistency

Structure & Knowledge Injection into Machine Learning Lab, Seoul National University Feb 2024 – Jan 2025
Research Intern (advisor: Jay-Yoon Lee)

- Designed and implemented a training method with trainable loss functions that automatically incorporate human pose structure, improving 3D human pose estimation performance

Language & Data Intelligence Lab, Seoul National University Apr 2023 – Feb 2024
Research Intern (advisor: Seung-won Hwang)

- Designed method to improve zero-shot information retrieval in low-resource languages through code-mixing as data augmentation
- Explored to improve retrieval-based language models for robust open-domain question answering for ambiguous queries

WORK EXPERIENCE

Z.ai Inc., Seoul, South Korea Jan 2025 – Jul 2025
Machine Learning Engineer

- Built and optimized a large-scale dense-sparse hybrid retrieval system for e-commerce search, supporting 10M+ items with sub-second latency (AWS EKS, OpenSearch)
- Designed embedding-based retrieval and ranking pipelines to improve search relevance and recall
- Implemented end-to-end ML serving pipeline (Flask/FastAPI) with production monitoring and scaling
- Developed LLM-powered writing assistant (OpenAI, LangChain, FastAPI) with prompt engineering and RAG, enabling rapid proof-of-concept for targeted content generation and boosting productivity for marketing teams

Gravity Labs Co., Ltd., Seoul, South Korea

Software Engineer, founding member

- Developed mobile apps with activity tracking and personalization, reaching 100K+ MAU (React Native, TypeScript)
- Engineered real-time data pipelines and backend services, ensuring transactional consistency and reliability (Node.js, MongoDB, AWS Lambda)

Sep 2022 – Mar 2023

VoyagerX, Inc., Seoul, South Korea

Machine Learning Engineer

- Designed optimized deep learning models for text-to-speech synthesis, reducing required training data by 33% while preserving output quality
- Developed GAN-based image generation models and pipelines for a photorealistic hairstyle transfer system

Mar 2022 – Aug 2022

Kakao Enterprise Corp. AI Lab, Seongnam, South Korea

Machine Learning Engineer Intern

- Enhanced chat domain-specific machine translation for KakaoTalk (50M+ users) using data augmentation and domain adaptation, increasing BLEU scores while reducing repetition errors

Sep 2021 – Feb 2022

PROFESSIONAL SERVICES

Workshop Reviewer

ICLR 2026 Workshop Sci4DL

Texas NLP Symposium

2026

2026

TEACHING EXPERIENCE

Data Structure (M1522.000900), Seoul National University

Undergraduate Teaching Assistant

- Taught data structure with examples and answered questions from 120 students

Mar 2024 – Jun 2024

Foundation of Physics 1 (034.005), Seoul National University

Undergraduate Teaching Assistant

- Tutored four undergraduate students with no background in physics

Mar 2024 – Jun 2024

SCHOLARSHIP AND AWARD

President’s Award for Student Leadership

President of Seoul National University

- Awarded to three of 2822 graduates who have significantly contributed to the development of the university and the local community

Aug 2024

Presidential Science Scholarship

Korea Student Aid Foundation

- Awarded merit-based scholarship covering full tuition and providing living expenses support, granted to only 120 science and technology majors nationwide

Mar 2015 – Feb 2020

LEADERSHIP EXPERIENCE

Military Service, Republic of Korea Army

Sergeant

- Commanded 10 soldiers as squad leader

Feb 2020 – Sep 2021

Undergraduate Student Body, Seoul National University

President

- Worked as the president directly elected by all 20,000 undergraduate students
- Led 100-member executive body and chaired 20-member executive committee

Dec 2018 – Nov 2019