

Lixin XIU

Doctoral Student at Graduate School of Information Science and Technology, the University of Tokyo
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Programming: Python, PyTorch

Research interests: representation learning, data mining and information retrieval.

EDUCATION

The University of Tokyo, Tokyo, Japan Oct 2024 — Sep 2027 (Expected)
Doctor student at Graduate School of Information Science and Technology Cumulative GPA: -/-
Supervisor: Prof. Hideki Nakayama

The University of Tokyo, Tokyo, Japan Oct 2022 — Sep 2024
Master of Information Science and Technology, Department of Mathematical Informatics Cumulative GPA: 2.95/3.0
Thesis: Enhancing neural network-based document retrieval with optimized indexing: An information-theoretic perspective

Xi'an Jiaotong University, Xi'an, China Aug 2018 — Jul 2022
Bachelor of Engineering in Computer Science and Technology Cumulative GPA: 86.09/100
Thesis: An automatic identification system for traffic signs based on deep neural networks

PUBLICATION

Conference Paper:

Xin Du*, **Lixin Xiu***, and **Kumiko Tanaka-Ishii**. Bottleneck-Minimal Indexing for Generative Document Retrieval. In *Proceedings of Forty-first International Conference on Machine Learning*, PMLR 235:11888-11904, 2024. **Selected as oral presentations (ICML 2024 Oral)**.

*: Equal Contribution

RESEARCH EXPERIENCE

Research Assistant Oct 2022 — Present
Tanaka-Ishii Laboratory, Waseda University Tokyo, Japan

- Manually replicated and evaluated classic word embedding models, such as GloVe.
- Participated in large language model (Llama-2) installation and inference on server.
- Downloaded and pre-processed multiple datasets for NLP-related research.

PROJECTS

Lab Research in few-shot image classification Oct 2020 — Oct 2021
Faculty of Electronic and Information Engineering, Xi'an Jiaotong University Xi'an, China

- Coded the data augmentation part of a few-shot learning classification network.
- Adjusted hyper-parameters, tested NN on datasets and realized the visualization of some layers for visual explanation.

Traffic Sign Recognition Contest, Summer Workshop 2021 May 2021 — Jul 2021
School of Computing, National University of Singapore Singapore

- Coded and optimized neural networks for traffic sign recognition, as well as delivering presentations.
- Won the third place and got A performance.

AWARDS

Graduate Achievements

UTokyo SPRING GX (180,000 yen per month) Oct 2024 — Sep 2027
JASSO Scholarship Oct 2022 — Mar 2023

Undergraduate Achievements

Outstanding Graduate of Xi'an Jiaotong University, Class of 2022 Jun 2022
Third Prize of the 12th Mathematics Competition of Chinese College Students Dec 2020
Third-class Scholarship for 2019-2020 Academic Year (University-level) Sep 2020