

Yijingxiu (Louise) Lu

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EDUCATION

- **Seoul National University** Sep. 2018 - Dec. 2025
Computer Science, Master and Ph.D. Seoul, South Korea
 - GPA: 3.83/4.20
- **University of Science and Technology Beijing** June. 2017
Communication Engineering, Bachelor Beijing, China
 - GPA: 3.34/4.00
- **Hefei NO.6 High School** June. 2013
Science, Secondary Education Hefei, China
 - Grade: 1.5%

LANGUAGES

- **English:** Business and Academic Proficiency
- **Korean:** Business Proficiency
- **Chineses:** Native




SKILLS

- **Programming Languages:** Python, C++, MATLAB, LaTeX
- **Data Science & Machine Learning:** PyTorch, TensorFlow, HuggingFace, PyG, TorchDrug, RDKit, Matplotlib
- **Research Tools:** AutoDock Vina, ChemDraw, PyMOL, Cytoscape
- **Web Technologies:** HTML, CSS, JavaScript, Django, D3.js, 3Dmol.js, Bootstrap
- **Database Systems:** SQL
- **Research Skills:** Experimental Design, Data Analysis, Literature Review, Interdisciplinary Collaboration

HONORS AND AWARDS

- **Excellent Poster Award** Oct. 2024
BIOINFO/2024 Annual Conference of Korean Society for Bioinformatics
 - Presented paper: "Condition Aware Relational Learning for Chemical Reaction Yields Prediction"
- **Notable Paper Award** May. 2024
Second ICLR Tiny Paper Track/ICLR
 - Presented paper: "Enhancing Drug-Drug Interaction Prediction with Context-Aware Architecture"
- **Samsung HumanTech Paper Award** Feb. 2024
Samsung Advanced Institute of Technology/Samsung
 - Presented paper "Improving Out-of-Distribution Generalization in Graphs with Hierarchical Semantic Environments" (co-author)
- **Excellent Project Award** Dec. 2022
"Chunhui Cup" Oversea Students Innovation and Entrepreneurship Competition, Ministry of Education, PRC
 - Lead project: "Artificial Intelligence-Based COVID-19 Target Discovery and Drug Design"
- **Global AI & Big Data Scholarship** Jan. 2021 - Jan. 2022
Daewoong Foundation
 - Project focus: Improving drug-likeness of generated molecules using designed objective functions and a VAE framework
- **Global Scholarship II** Mar. 2019 - Jun. 2021
Office of International Affairs/Seoul National University
- **1st Prize in Computer Games** Aug. 2016
National Computer Games Tournament, China
 - Awarded in categories "EinStein würfelt nicht!" and "Dots and Boxes"
- **1st Prize in Software Design and Development Competition** Jul. 2014
Computer and Communication Engineering School, USTB

LEADERSHIP EXPERIENCE

- **Head Teaching Assistant** Sep. 2024 - Dec. 2024
Seoul National University, Department of Computer Science
 - Led the 2024-2 Algorithm (001) course, coordinating teaching assistant activities and mentoring team members.
- **Head Student, Bio & Health Informatics Lab** Aug. 2023 - Aug. 2024
Seoul National University 
 - Managed academic and administrative affairs, organized lab meetings, and oversaw intern management.
- **Teaching Assistant, Machine Learning in Bioinformatics (001)** Mar. 2024 - Jun. 2024
Seoul National University, Department of Computer Science
 - Delivered lectures on deep learning methodologies and their applications on bioinformatics.
- **Teaching Assistant, AI-BIO** Sep. 2022 - Dec. 2022
Seoul National University, Artificial Intelligence Institute
 - Delivered lectures on AI-based drug discovery (drug-target interaction prediction models).
- **Implement Deep Learning Model on Self-Built Website** Aug. 2022
Bio & Health Informatics Lab/Seoul National University 
 - Implemented our proposed drug-target interaction prediction model and diffdock on our website.
- **Lab Website Maintain** Aug. 2020 - Aug. 2023
Bio & Health Informatics Lab/Seoul National University 
 - Maintain the homepage of BHI lab.

PATENTS AND PUBLICATIONS

C=CONFERENCE, J=JOURNAL, P=PATENT, W=WORKSHOP, S=IN SUBMISSION

- [S.2] Lu Y., Piao Y., & Kim S. (2025). **Reaction Yield Prediction with Chemical Role Aware Learning**.
- [W.2] [S.1] Lu Y., Lee S., Kang S., & Kim S. (2025). **Mixture-of-Experts Approach for Enhanced Drug-Target Interaction Prediction and Confidence Assessment**. Accepted at BIODDD 2024. Invited submission for publication in *IEEE ACM TCBB*.
- [J.2] [W.1] Lu Y., Piao Y., Lee S., & Kim S. (2025). **Context-Aware Hierarchical Fusion for Drug Relational Learning**. Accepted at BIODDD 2024. *IEEE Transactions on Computational Biology and Bioinformatics* (2025).
- [C.3] Piao Y., Lee S., Lu Y., Kim S. (2024). **Improving out-of-distribution generalization in graphs via hierarchical semantic environments**. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*.
- [C.2] Lu Y., Piao Y., & Kim S. (2024). **Enhancing Drug-Drug Interaction Prediction with Context-Aware Architecture**. In *The Second Tiny Papers Track at ICLR 2024*.
- [C.1] Choi MG., Shin W., Lu Y., & Kim S. (2023). **Triangular Contrastive Learning on Molecular Graphs**. In *Molecular Machine Learning Conference (MOML 2023)*.
- [P.1] Lim S., Kim S., Lu Y., et al. (2022). **Device and Method for Predicting Interactions Between Compounds and Proteins**. Assigned to Seoul National University, Patent No. 0534-20210052.
- [J.1] Lim S.*, Lu Y.*, Cho C Y., et al. (2021). **A review on compound-protein interaction prediction methods: data, format, representation and model**. *Computational and Structural Biotechnology Journal*.