Xing Yi (Peter) Liu

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Columbia University, New York, NY, United States **EDUCATION**

Feb 2023

M.S. in Computer Science, Machine Learning Track

University of California, Los Angeles, Los Angeles, CA, United States

Jun 2021

B.A.Sc. in Applied Mathematics (with Specialization in Computing) and Business Economics

POSITIONS

HELD

Tsinghua University, Beijing, China

Research Intern, Institute for AI Industry Research

Mar 2023 - Aug 2023

Columbia University, New York, NY, United States

Head Teaching Assistant, COMS W3203, Discrete Mathematics, Prof. Tony Dear

Fall 2022

Teaching Assistant, COMS W4701, Artificial Intelligence, Prof. Tony Dear

Spring, Summer 2022

Bedrock Industries, Shanghai, China

Data Analyst Intern

Dec 2019

CITIC Securities, Beijing, China

Investment Banking Intern, Health Services Group

Aug 2018 - Sep 2018

PUBLICATIONS

- [1] Yizhen Luo, Xing Yi Liu, Kai Yang, Kui Huang, Massimo Hong, Jiahuan Zhang, Yushuai Wu, and Zaiqing Nie. "Towards Unified AI Drug Discovery with Multiple Knowledge Modalities." arXiv, October 2023.
- [2] Yizhen Luo, Kai Yang, Massimo Hong, Xing Yi Liu, and Zaiqing Nie. "MolFM: A Multimodal Molecular Foundation Model." arXiv, June 2023.
- [3] Xing Yi Liu and Homayoon Beigi. "Efficient Ensemble for Multimodal Punctuation Restoration Using Time-Delay Neural Network." 18th International Conference on Ubiquitous Information Management and Communication (IMCOM), January 2024.
- [4] Anqi Cui, Guangyu Feng, Borui Ye, Kun Xiong, Xing Yi Liu, and Ming Li. "UWNLP at the NTCIR-12 Short Text Conversation Task." Proceedings of the 12th NTCIR Conference on Evaluation of Information Access Technologies (NTCIR-12), June 2016.

OTHER RESEARCH **OpenBioMed**

Aug 2023

Yizhen Luo, Kai Yang, Massimo Hong, Xing Yi Liu, Suyuan Zhao, Jiahuan Zhang, Yushuai Wu, and Zaiqing Nie

- Deep learning framework for biomedical research: https://github.com/PharMolix/OpenBioMed
- Supports 3 modalities for molecules, 10 downstream tasks, 20+ models, and 20+ datasets

Peptide Quantification

Jul 2022 – Mar 2023

Supervisor: Prof. Ming Li, University of Waterloo

- Determining relative abundance of specific peptides in biological samples using machine learning
- Aggregating varying peptide amounts detected in different replicates of the same dilution sample
- Adopting PointIso for peptide feature detection from liquid chromatography mass spectrometry maps

AWARDS

Andrew P. Kosoresow Memorial Award for Excellence in Teaching and Service

Apr 2023

Awarded at Columbia University for teaching assistantship, nominated by Prof. Tony Dear

SERVICE President, UCLA Undergraduate Mathematics Students Association Mar 2020 – Mar 2021