# Research Seminar
# Foundation Models for Life Science

Speaker: Prof. Le Song, CTO and Chief AI scientist of Biomap, Professor of MBZUAI

Date: January 24, 2024 (Wed)

Time: 16:30 (HKT)

Venue: Room 308, Chow Yei Ching Building

Abstract

Can we leverage a large amount of unsupervised data to accelerate life science discovery and drug design in industry? In this talk, I will introduce the xTrimo family of large scale pretrained models across a multiscale of biological processes, integrating a huge amount of data from protein sequences, structures, protein-protein interactions and single-cell transcriptomics data. The pretrained models can be used as the foundation to address many predictive problems arising from life science and drug design and achieve SOTA performances.

About the Speaker:

Le Song is the CTO and Chief AI Scientist of BioMap. He directs the research and development of the xTrimo family of foundation models for life sciences, which is the largest model family in the area consisting of more than 100B parameters and achieving SOTA performance in tens of downstream problems. This new technology also led to the first foundation model deal with big pharmaceutical companies (Sanofi) totaling 1B dollar in contract value. Academically, Le Song is full professor in MBZUAI, and was a tenured associate professor of Georgia Tech, and the conference program chair of ICML 2022. He is an expert in machine learning and AI, and has won many best paper awards in leading AI conferences such as NeurIPS, ICML and AISTATS. Recently, his work on using large language models for protein structure predictions has been featured as the cover story in Nature Machine Intelligence.

**All are welcome!**
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