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Department of Medicine
Channing Division of Network Medicine

Channing Methods Meeting

October 10 (Tuesday), 2023, 11AM (ET)

MCP 5th-floor large conference room

<https://us02web.zoom.us/j/579497999?pwd=cHNIWHMzWUJFUUVJTG1EeVJmY05aQT09>

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Qiang Zhang, PhD
Zhejiang University

Language and Knowledge driven Scientific Discovery

Scientific research has been revolutionized by artificial intelligence, with numerous successes in biology and chemistry. In this talk, I will focus on the interdisciplinary field of AI driven biological and chemical discovery, aiming to establish language and knowledge driven machine learning models. By leveraging the capable large language model and symbolic domain knowledge, our team has published a number of AI models that achieve promising results in tasks such as protein and molecular function prediction, and design/generation. The published models serve as a bridge between human and the nature, helping humans better understand and explore the natural world.

Bio: Dr. Qiang Zhang is a Principal Investigator under the Hundred Talents Program at Zhejiang University. Before that, he obtained his Ph.D. degree and served as a postdoctoral researcher, both at the Department of Computer Science, University College London in the United Kingdom. He was supervised by Prof. Emine Yilmaz, an internationally renowned expert in the field of information retrieval and natural language processing. Dr. Zhang's research focuses on machine learning, human language processing, knowledge graphs, and applications to biochemical language (proteins and molecules) modeling. He has published over thirty articles in top-tier AI academic journals and conferences including Nature Machine Intelligence, NeurIPS, ICML, ICLR, AAI and ACL. He also serves as the associate editor of the Big Data Research journal and PC members of AI conferences such as NeurIPS'19-23, ICML'19-23 and AAI'18-23. He was awarded the Great Britain-China Educational Trust in 2020.

Hosted by Yang-Yu Liu