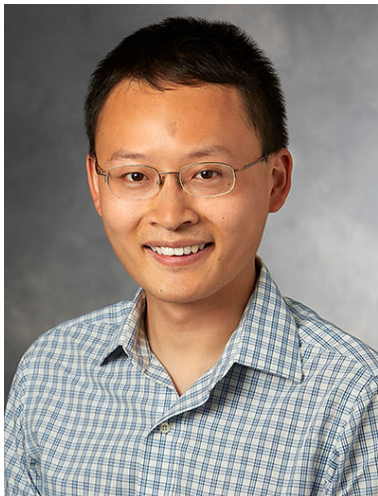


DBMI OPEN INSIGHTS

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Biomedicine in the Age of Generative AI



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and, by courtesy, of Computer Science and Electrical Engineering**

There have been tremendous advances in generative AI such as ChatGPT and DALL·E. Generative models can potentially expand researchers' creativity while balancing complex tradeoffs. I will illustrate this with applications of generative AI to different stages of biomedical research through three examples. We will first discuss how to use generative AI to design and experimentally validate novel drugs. Then we will apply a similar generative approach to inform the design of clinical trials to make trials more efficient and inclusive. Finally, we will demonstrate how to build visual-language models to index complex biomedical data. Throughout, I will highlight some of the key open challenges with generative AI related to bias amplification and behavioral drift.

Tuesday, September 12, 2023 • 12:00–1:00pm • Free Pizza Lunch 11:30am
Countway Library • Lahey Room (5th Floor)

The DBMI Open Insights Seminars are occasional research talks related to the mission of the Department of Biomedical Informatics. This includes themes such as:

- Provisioning big data to the scientific community
- Getting the big picture on human health
- Learning from each patient
- Advancing basic science with data science
- Understanding disease beyond heredity: environmental impact
- Instrumenting the health enterprise for discovery and intervention



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