

DEPARTMENT OF COMPUTER SCIENCE

SEMINAR

2025 SERIES

Foundation Models in Healthcare: Advances, Pitfalls, and Path Forward

DATE & TIME

7 JUL 2025 (MON) 10:00 - 11:00 AM

VENUE

DLB111, 1/F, DAVID C. LAM BUILDING, SHAW CAMPUS



DR. XIAOXIAO LI

Assistant Professor
Department of Electrical and Computer Engineering
The University of British Columbia

ABSTRACT

Foundation models (FMs) have emerged as transformative tools in AI-driven healthcare, promising unprecedented capabilities for biomedical data analysis. In this talk, I will first provide an overview of our recent advances in incorporating transformer-based FMs into medical image analysis. Despite their successes, medical FMs face critical challenges, including biases, limited interpretability, insufficient adaptability to clinical contexts, etc. As the focus of this talk, I will share our exploration of these challenges, emphasizing strategies that significantly enhance fairness, robustness, and clinical utility. Additionally, I will share our in-depth analysis on critically examining the ongoing debate over whether general-purpose foundation models are justified, considering their substantial cost, or if specialized medical foundation models alone suffice. Lastly, I will outline our strategies to unlock the full potential of trustworthy and impactful AI in healthcare.



SPEAKER'S
BIOGRAPHY



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