

*The College of Computing and the College of Engineering  
are pleased to present a lecture by faculty candidate*



# Fan Chen

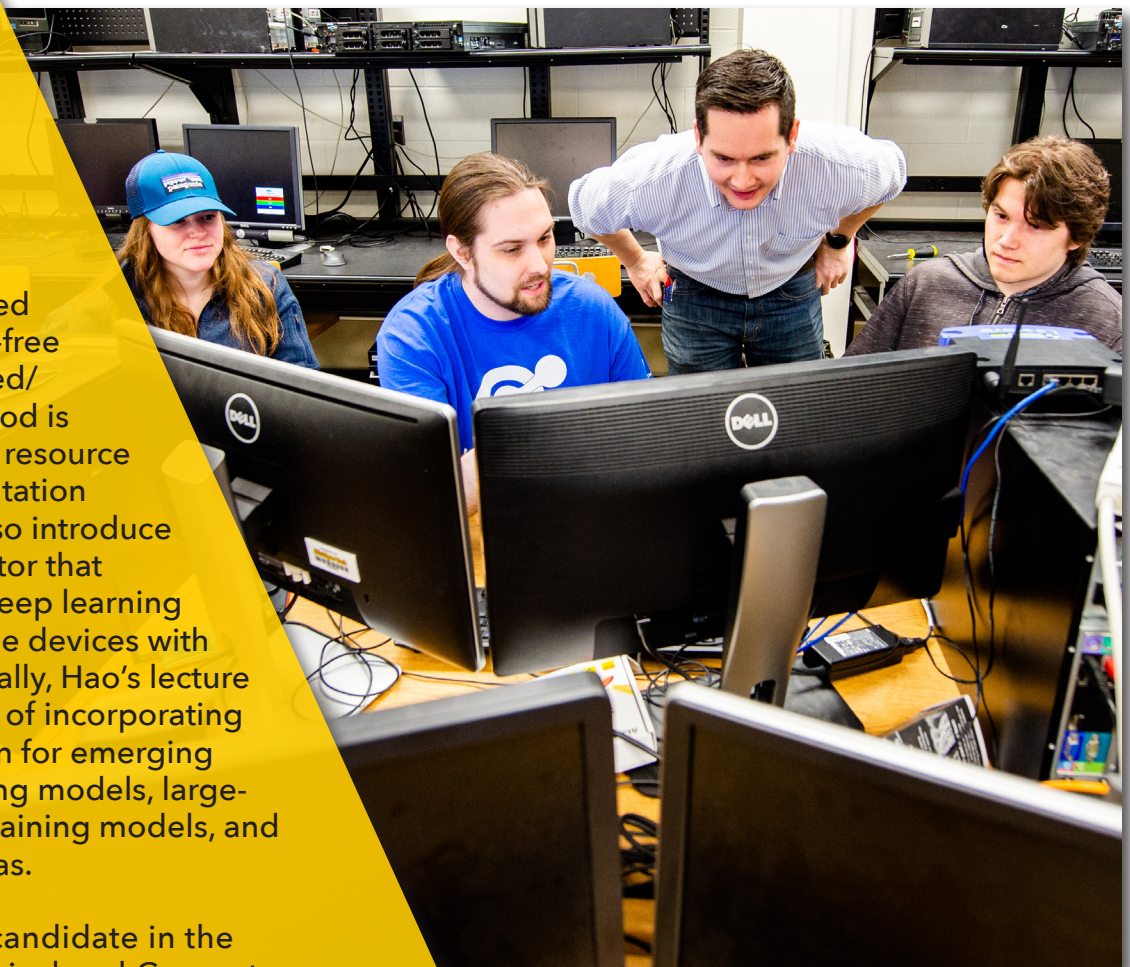
Monday, February 10, 2020

3:00 pm Chem. Sci. 102

## Efficient Hardware Acceleration of Unsupervised Deep Learning

**C**hen will discuss her work that devises a comprehensive full-stack solution for enabling GAN training in emerging resistive memory based main memory. A zero-free dataflow and pipelined/parallel training method is proposed to improve resource utilization and computation efficiency. Hao will also introduce an inference accelerator that enables developed deep learning models to run on edge devices with limited resources. Finally, Hao's lecture will discuss her vision of incorporating hardware acceleration for emerging compact deep learning models, large-scale decentralized training models, and other application areas.

Fan Chen is a Ph.D. candidate in the Department of Electrical and Computer Engineering at Duke University. Her research interests include computer architecture, emerging nonvolatile memory technologies, and hardware accelerators for machine learning.



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