

## Research Statement

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My research interest is the extension of tensor network algorithms in machine learning and quantum computing. These three directions are all coincident with the research interests of the deep quantum lab and Prof. Jacob.

Specifically, during my PhD period, I have been focusing on introducing TN to machine learning applications. This is an interesting direction that explores the similarities between traditional machine learning probability graph models and tensor network models. I hope to cooperate with Prof. Jacob to promote this direction more deeply.

During this time, I also noticed the potential power of TN in quantum computing, quantum simulation, and quantum error correction. I expect that I will have a large part of my future interest on this. this one is something I can learn from Prof. Jacob.

Meanwhile, I have a lot of tensor network programming experience, I think this could contribute a lot to Prof. Jacob's group.