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# RNN-based track finding in the Fermilab Muon g-2 experiment

*Tuesday, July 13, 2021 3:45 PM (15 minutes)*

We report on the development of a track finding algorithm for the Fermilab Muon g-2 Experiment's straw tracker using advanced Deep Learning techniques. Taking inspiration from original studies by the HEP.TrkX project, our algorithm relies on a Recurrent Neural Network with bi-directional LSTM layers to build and evaluate track candidates. The model achieves good performance on a 2D representation of the Muon g-2 tracker detector. We will discuss our targets for improving efficiency and performance, and plans towards application on real data via training on a synthetic dataset.

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Yes

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