



THE UNIVERSITY OF
CHICAGO

Department of Statistics

MASTER'S THESIS PRESENTATION

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An Application of Recurrent Neural Networks and Long Short-Term
Memory to Financial Markets

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ABSTRACT

In this paper, I use two artificial neural networks, Recurrent Neural Networks and Long Short-Term Memory, trained via stochastic gradient descent and back-propagation through time to attempt to predict future stock market returns. I use only a few input parameters and daily trade data and still find limited predictability for some assets. This emphasizes the power that these techniques have and raises the possibility for further study.

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