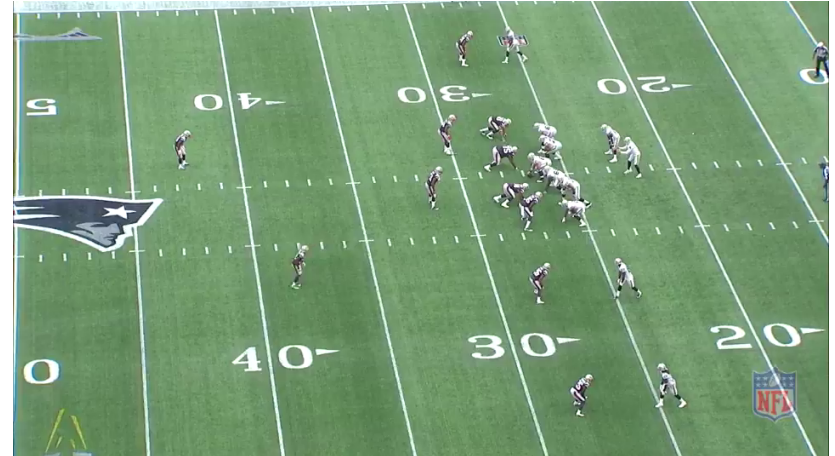# Video Frame Prediction Using Autoencoding and LSTM

Ben McCamish

Trevor Fiez

Introduction

- American Football Plays
  - Downsampled

- Goal is to predict the next frame in a sequence

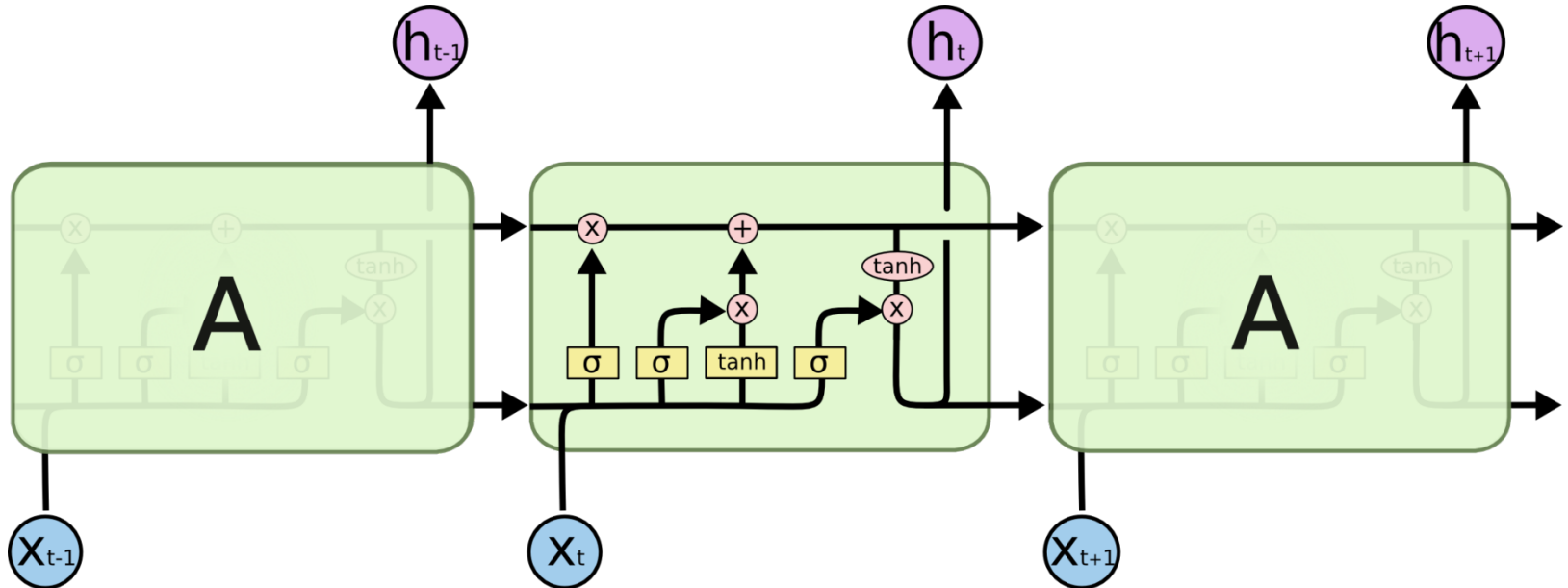- Use Autoencoder to reduce feature vector

- Use LSTM to train

Autoencoder

- Goal: Reduce the number of features

- Didn't work as intended, couldn't reduced number of features

- Initially wanted to include in LSTM network

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Long Short Term Memory

- A neuron connected to itself
- Learns a state-vector to represent history of input and output

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Long Short Term Memory

- Goal: Predict next frame in sequence

- Learn from previous frames, goal in training is next frame in sequence

- Effective, sort of…

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