
Knowledge Discovery & Data Mining

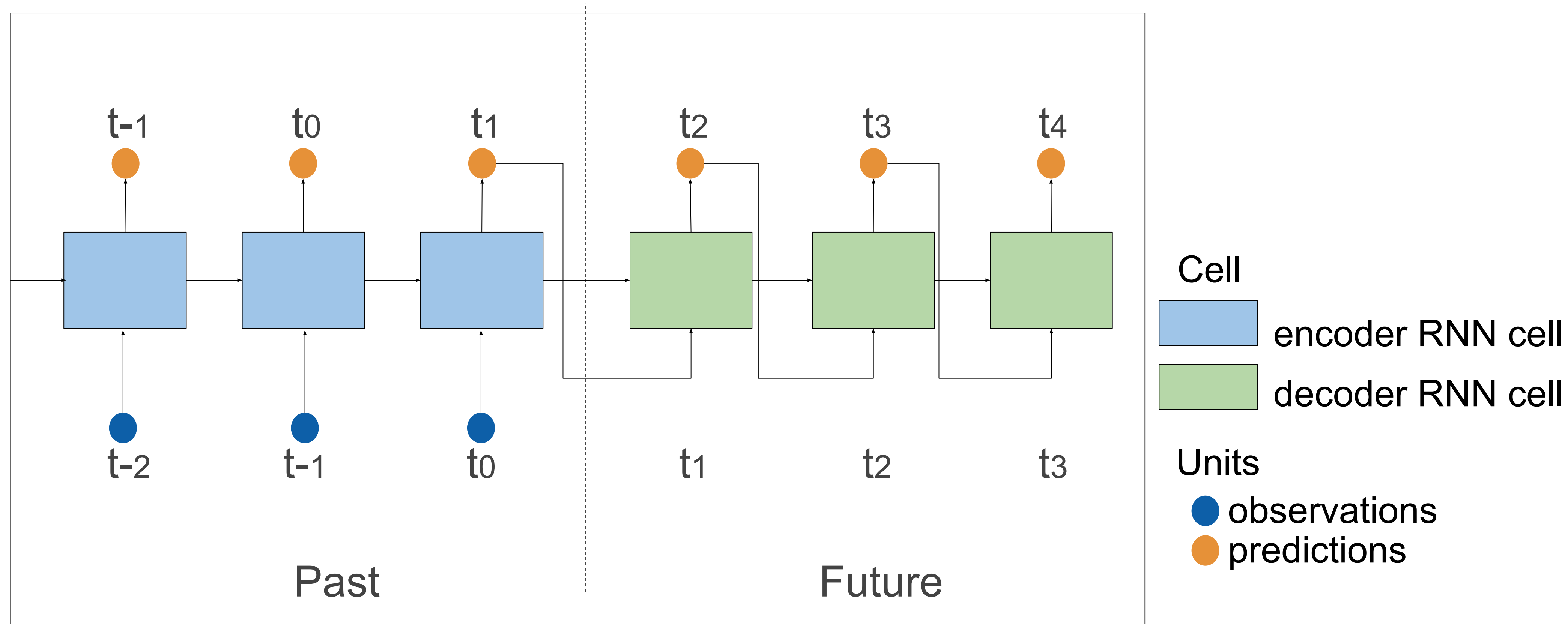
— RNN with Attention Mechanisms —

Instructor: Yong Zhuang

yong.zhuang@gvsu.edu

RNN for time series forecasting

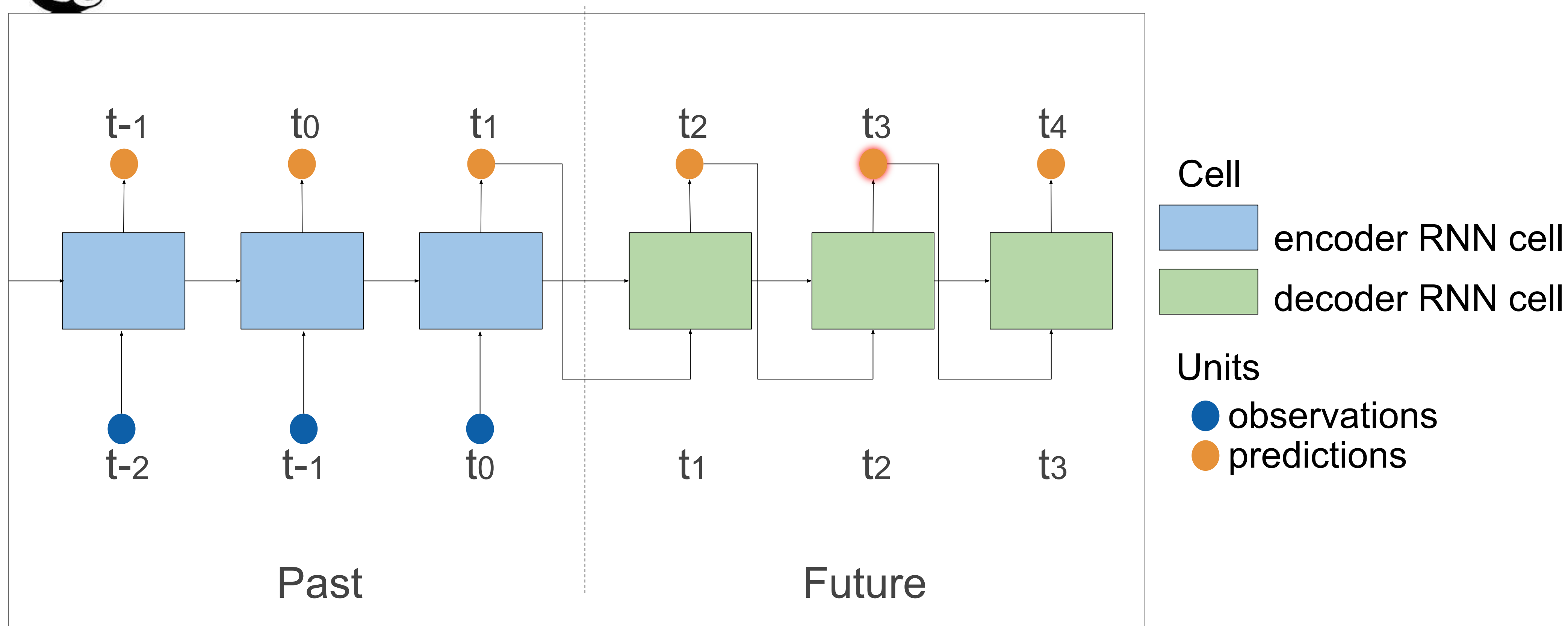
Sequence to Sequence Model



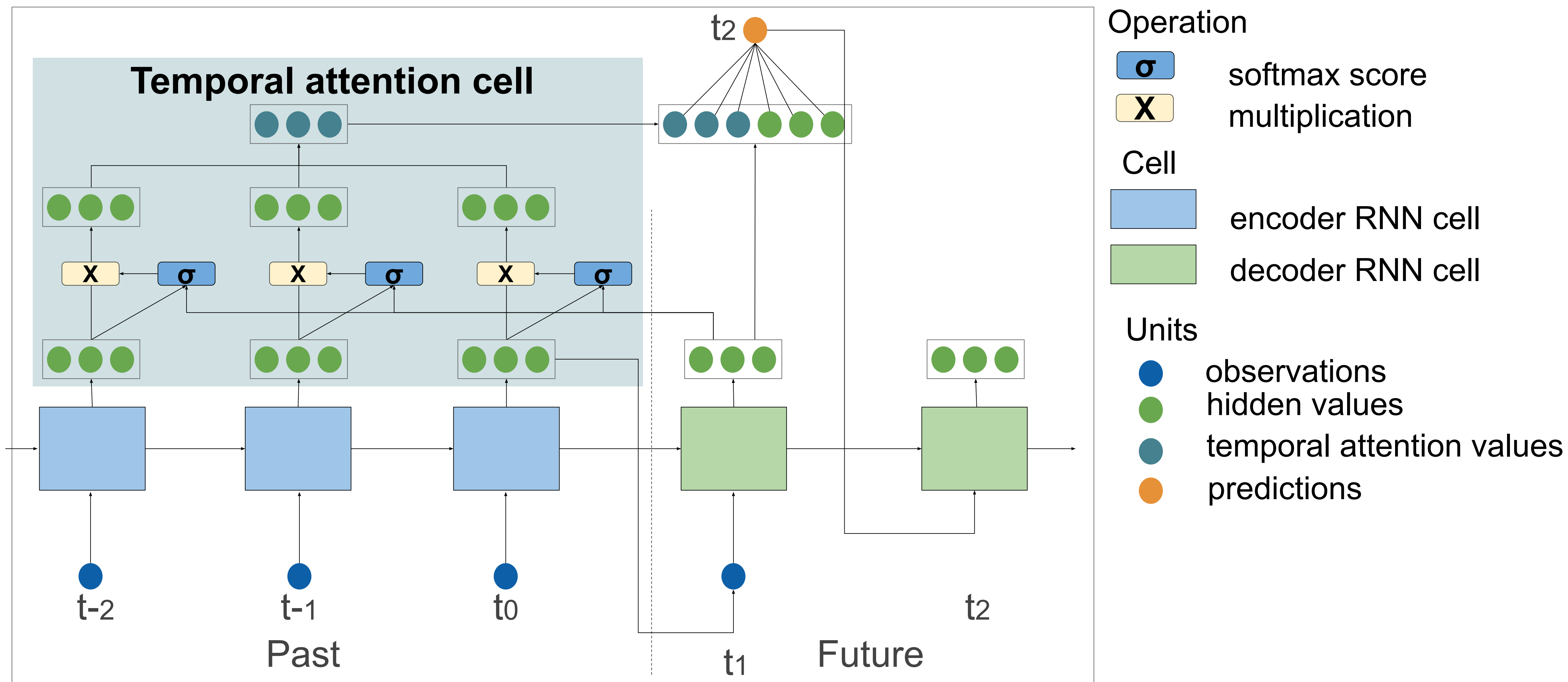
RNN for time series forecasting



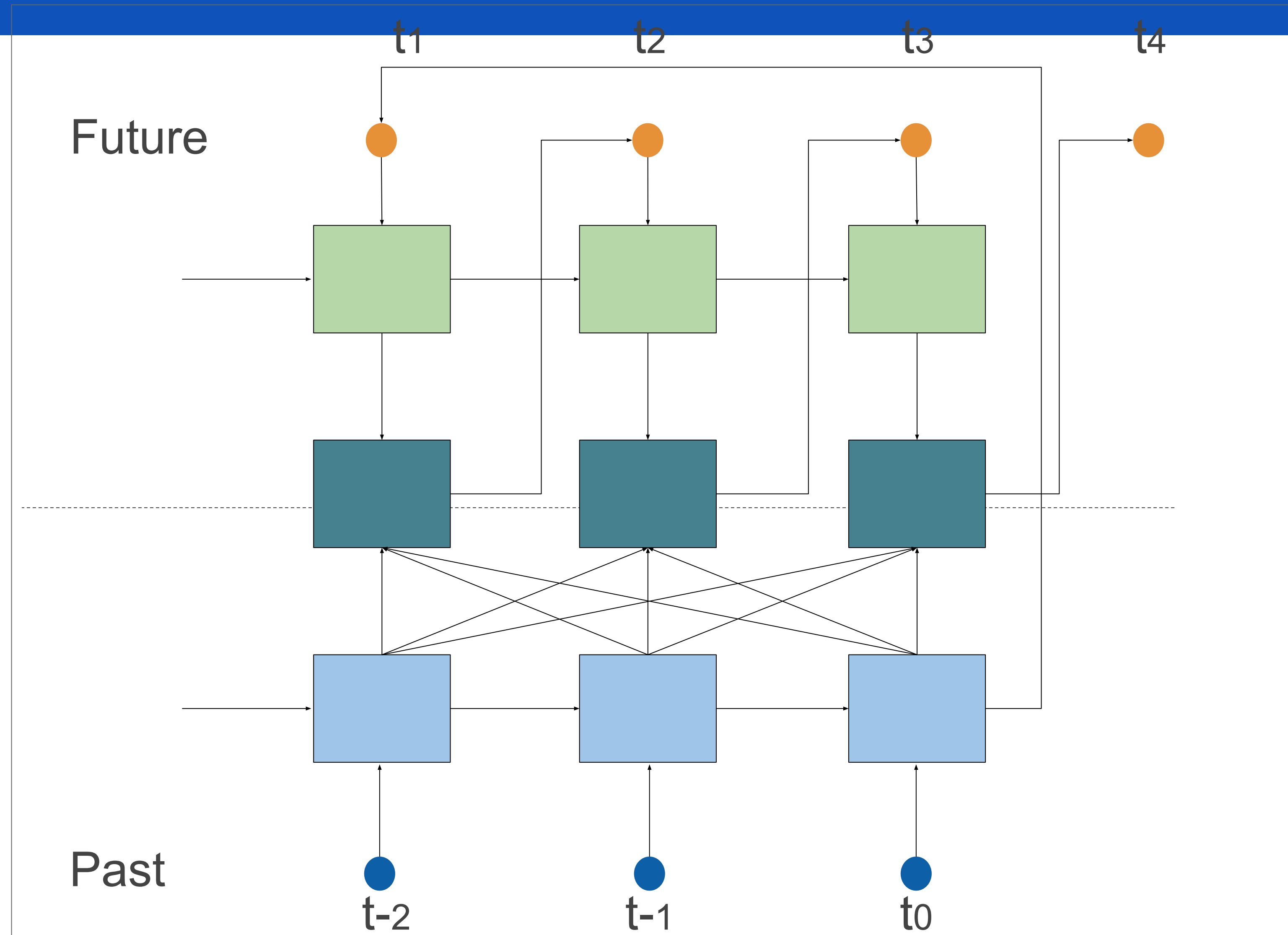
For a particular sample, how can I know which observed values are strongly related to the prediction at t_3 ?

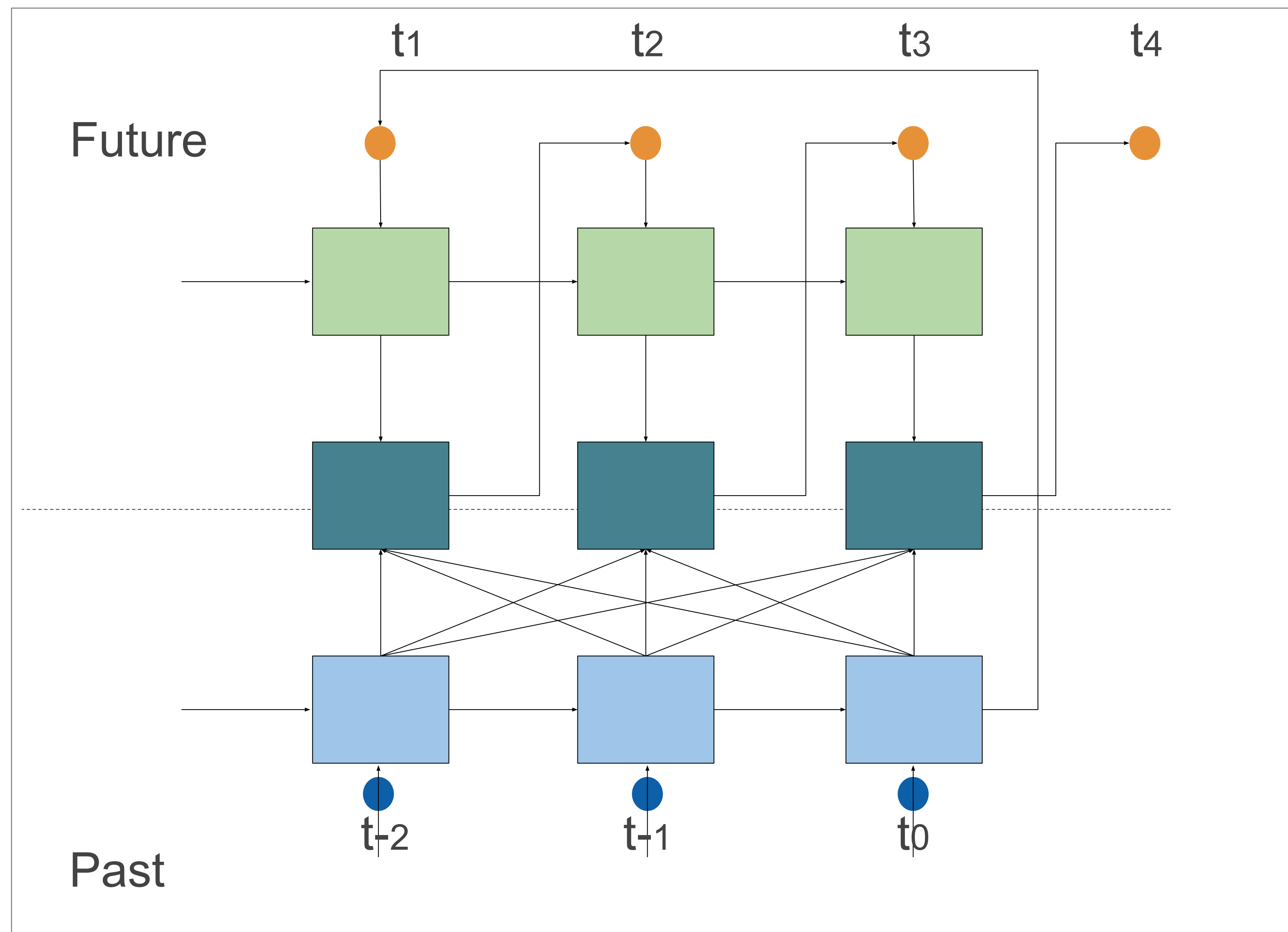


Temporal attention injection



Temporal attention injection





In light of the performance enhancements brought by attention mechanisms, is the RNN component still necessary in our models, or can attention mechanisms effectively replace the traditional role of RNNs?