Austin Dial May 11, 2019

To: Professor Mohammad Imtiaz, PhD.

From: Austin Dial

Subject: ANN Financial Analysis

Date: May 11, 2019

Enclosed within this document lie the results of a thorough literature review and empirical analysis of utilizing ANNs for financial research. In particular, this report summarizes existing approaches to financial time series analysis including applying LSTM structures for time series prediction. However, neural networks have not historically been applied to equity valuation. The motivation is clear to develop an approach for predicting broad market price movements. Not only does this report detail such an approach, an additional series of financial analysis tools have been developed which are less speculative.

It is my firm belief that speculating on financial markets is generally poor financial practice. However, an investigation into the methodologies involved in such speculation will make for interesting research at the very least.

ENG 305 Page 1