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Connor R Loken* (lokencr17@mail.vmi.edu), VMI BOX 937, Lexington, VA 24450, and **John A David** (davidja@vmi.edu), Virginia Military Institute, Lexington, VA 24450. *Predicting NCAA Basketball and Football Using an Adaptive Neuro-Fuzzy Inference System*. Preliminary report.

In this work we develop an innovative model for predicting NCAA Basketball and Football using Adaptive Neuro-Fuzzy Inference Systems (ANFIS). ANFIS is a type of neural network based on mapping each of the inputs to a particular membership function then learning their relationship with the output of interest. The model adjusted the Las Vegas prediction of a game based on Google trend data, a metric for the amount of web searches for each team. We found that this model generally gains several percentage points in terms of games predicted correctly in accuracy from the Las Vegas prediction and would be one of the best predictors on the Prediction Tracker website. These results were evaluated over the entire 2012, 13 and 14 seasons. The real improvement over the Las Vegas prediction was where the games were predicted as being even. Our model tends to pick the victor of these games the majority of the time. We will present preliminary results on how we are extending this approach to professional football and basketball. (Received September 21, 2015)