**FUTURE WORKS**

Both linear regression and functional regression were outperformed by professional weather forecasting services, although the discrepancy in their performance decreased significantly for later days, indicating that over longer periods of time, our models may outperform professional ones. Linear regression proved to be a low bias, high variance model whereas functional regression proved to be a high bias, low variance model. Linear regression is inherently a high variance model as it is unstable to outliers, so one way to improve the linear regression model is by collection of more data. Functional regression, how- 5 ever, was high bias, indicating that the choice of model was poor, and that its predictions cannot be improved by further collection of data. This bias could be due to the design choice to forecast weather based upon the weather of the past two days, which may be too short to capture trends in weather that functional regression requires. If the forecast were instead based upon the weather of the past four or five days, the bias of the functional regression model could likely be reduced. However, this would require much more computation time along with retraining of the weight vector w, so this will be deferred to future work.