

Student name: Seifeldeen Eteifa

Academic level: PhD

Thesis/dissertation title: *Integrating Machine Learning and Domain Knowledge for Traffic Signal Prediction*

Impact Statement:

“I was able to create a SQL database for traffic signal phase and timing and traffic signal controller data for 13 intersections in Northern Virginia. Based off that data, developed actuated traffic signal switching times machine learning models that were 5% better than state of the art. Employed machine learning models to provide live traffic signal predictions for driver assistance programs as part of Safe-D program. The project was a starting point for my PhD and allowed me to start gathering data and conducting analysis upon which I built further research and publications.”