

The aim of this thesis is to predict targets in a Multiple Object Tracking (MOT) task, in which subjects track multiple moving objects. We processed and analyzed data containing object and gaze position information from 1148 MOT trials completed by 20 subjects. We extracted multiple features from the raw data and designed a machine learning approach for the prediction of targets using neural networks and hidden Markov models. We assessed the performance of the models and features. The results of our experiments show that it is possible to train a machine learning model to predict targets with very high accuracy.