

Model Drift Assignment

Concept Drift

Concept Drift happens when there are major external trends that impact the data and through that the model. In the context of for example predicting the weather through ML applications, due to climate change the overall temperature gets warmer. This makes the model less and less accurate over time and might lead to more mistakes when it comes to predicting the temperature. It needs an understanding of the subject to notice this drift and account for it.

Data Drift

Feature Drift

Data Drift is when the distribution of a variable or the definition of labels are changing. This might be for example when an online store that is specialised on technological products tries to predict their users' consumption. When first training their model there was a big demand for OLED TVs that just entered the market at the time. Since then, the hype has died off so that the demand for OLEDs has declined. In this case there might be errors because the model doesn't account for the change in demand.

Label Drift

For label drift, where the definition of a label changes, this might be for example when the standards for the energy badges on electrical devices change. When trying to predict what the average energy badge for all devices in a store of a chain is, this might now be incorrect. Changes in standards might be for example that devices that previously achieved an A-badge now might be a B because the rating system has newly been changed in order to account more modern and sustainable technology.

Seasonal Drift

A seasonal drift can occur whenever there are strong changes that depend on the time of the year. For example when trying to predict product groups that perform well in stores, every November to December the Christmas products are strongly represented which over time the model might account for with ranking those products higher than when it was first trained.