One of the most used method was machine learning to capture complex and non-linear relationships. Commonly used supervised machine learning models in the area of classification were logistic regressions, decision trees, random forest and XG-boost. kannst du den satz grammatikalisch und sprachlich verbessern

Gerne! Hier ist eine verbesserte Version des Satzes:

One of the most commonly used methods was machine learning, which is well suited for capturing complex and non-linear relationships. Frequently applied supervised learning models for classification included logistic regression, decision trees, random forests, and XGBoost.

Wenn du möchtest, kann ich dir auch eine deutsche Übersetzung liefern oder den Stil noch wissenschaftlicher anpassen.

On the other hand are some machine learning models, which fall under unsupervised learning in the area of clustering like hierarchical clustering, DBSCAN and k-means \parencite{vidal2024supervised, cao2024spatial}. Further unsupervised machine learning models like NMF and PCA are applied for dimensionality reduction. auch hier satz sprachlich verbessern

Natürlich! Hier ist eine sprachlich und grammatikalisch überarbeitete Version deines Satzes:

On the other hand, some machine learning models fall under unsupervised learning, particularly in the area of clustering, such as hierarchical clustering, DBSCAN, and k-means \parencite{vidal2024supervised, cao2024spatial}. Additionally, unsupervised models like NMF and PCA are commonly used for dimensionality reduction.

Wenn du einen noch formelleren oder wissenschaftlicheren Stil bevorzugst, könnte man es auch so formulieren:

In contrast, unsupervised machine learning models are employed for tasks such as clustering—examples include hierarchical clustering, DBSCAN, and k-means \parencite{vidal2024supervised, cao2024spatial}. Furthermore, techniques like Non-

negative Matrix Factorization (NMF) and Principal Component Analysis (PCA) are frequently used for dimensionality reduction.

Sag gern Bescheid, welcher Stil dir lieber ist.

> To have an explorative view about the data, some studies used various interactive visualization techniques for example with sparkboxes \parencite{oppermann2021timeelide} or pass network-based tools such SoccerMetrics. auch hier den satz sprachlich verbessern

Klar, hier ist eine sprachlich verbesserte Version deines Satzes:

> To gain an exploratory view of the data, some studies employed various interactive visualization techniques, such as sparkboxes \parencite{oppermann2021timeelide} or pass network–based tools like SoccerMetrics.

Wenn du möchtest, kann ich den Satz auch noch etwas flüssiger oder formeller gestalten.