

LIST OF NOTATIONS

| Symbols | Definition |
|-----------------|--|
| X_i | Vector of features in the minority class |
| \hat{X}_i | The k-nearest neighbor for X_i |
| δ | Random number between 0 and 1 |
| Q | The set of queries that are used to compute the attention scores |
| K | The set of keys that the queries will be compared against to compute the attention scores |
| V | The set of values that are aggregated to produce the output |
| d_k | Dimensionality of key vectors |
| <i>Softmax</i> | Function converts the dot product scores into a probability distribution, where each score is transformed into a value between 0 and 1, and the sum of all values is 1 |
| $head_h$ | The individual attention and the set of queries that are used to compute the attention scores |
| <i>Concat()</i> | Concatenation of all the individual attention heads |
| W^O | Output weight matrix |
| TP | The number of positive samples correctly predicted as positive |
| TN | The number of negative samples correctly predicted as negative |
| FN | The number of positive samples incorrectly predicted as negative |
| FP | The number of negative samples incorrectly predicted as positive |