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(54) Title: TRANSACTION GENERATIVE PRE-TRAINED TRANSFORMER

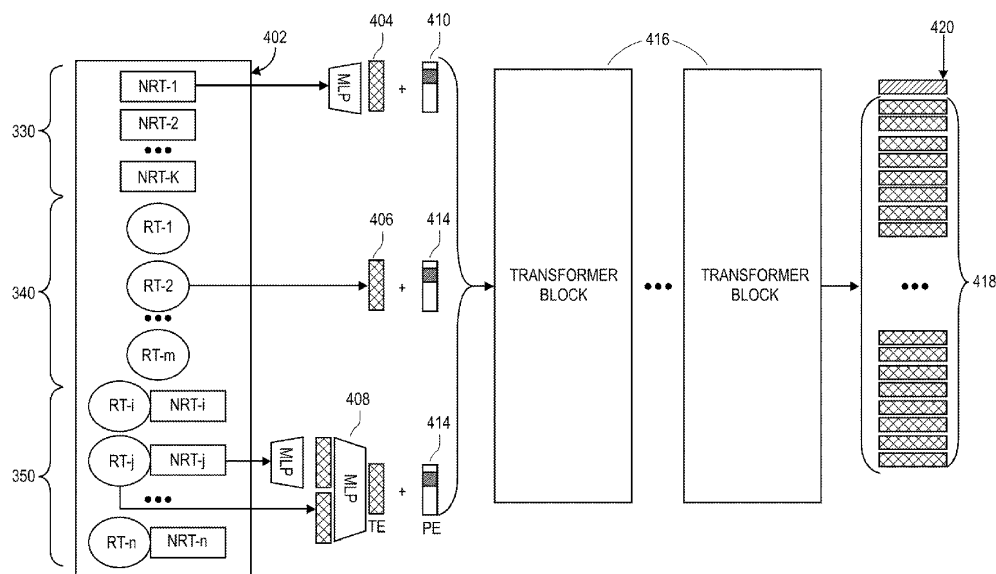


FIG. 4

(57) **Abstract:** A method includes a computer obtaining interaction data comprising a plurality of interaction data sets. Each interaction data set comprises a plurality of tokens. The plurality of tokens include non-repeatable tokens and repeatable tokens. For each interaction data set, the computer encodes the non-repeatable tokens of the plurality of tokens to form non-repeatable token embeddings, retrieving repeatable token embeddings from memory using the repeatable tokens, wherein the repeatable token embeddings and the non-repeatable token embeddings are in a plurality of first embeddings, concatenating the plurality of first embeddings with positional encodings to form second embeddings, and generating an interaction data set embedding based on the second embeddings. The computer determines one or more predicted interaction data set embeddings using interaction data set embeddings comprising the interaction data set embedding for each interaction data set. The computer decodes the one or more predicted interaction data set

[Continued on next page]

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embeddings to predicted tokens.