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(54) Title: SYSTEM AND METHOD FOR OPTIMIZER WITH ENHANCED NEURAL ESTIMATION

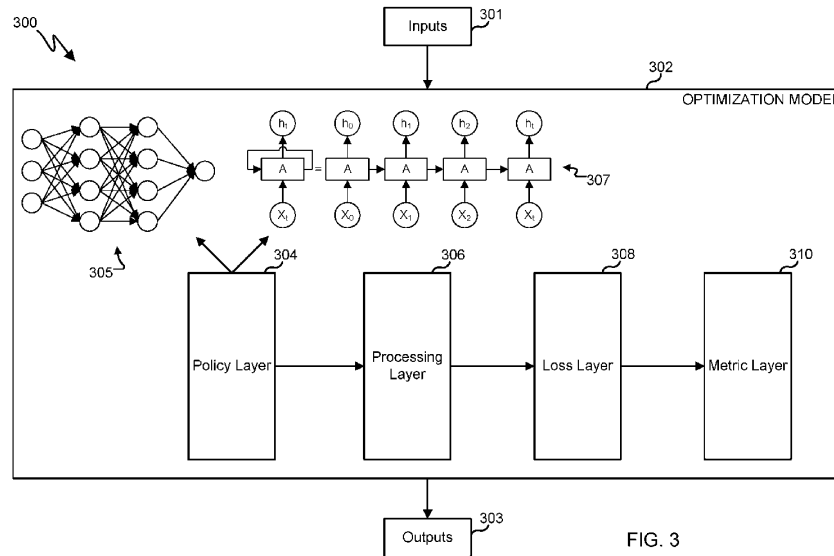


FIG. 3

(57) Abstract: A method (600) includes receiving (614) a plurality of inputs (301, 403, 503) including domain parameters (404, 504) and initial weights (408, 508). The method also includes providing (620) the plurality of inputs to an optimization model (302, 402, 502). The method also includes performing (622), using a first layer (304) of the optimization model, a training and optimization process based on the plurality of inputs and based on a training objective. The method also includes performing (624), using a second layer (306) of the optimization model, a differencing operation on an output of the first layer. The method also includes recording (626), using a third layer (308) of the optimization model, a loss based on the training objective used by the optimization model. The method also includes calculating and storing (628), using a fourth layer (310) of the optimization model, metrics regarding the training and optimization process. The method also includes outputting (630), using the optimization model, updated weights (418, 518).

[Continued on next page]

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