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(57) Abstract :  
 Embodiments of the present disclosure relates to a system (100) and method (300) for multi-party data function computation using discriminative dimensionality-reducing mappings that preserve the privacy of input data while enabling computation of desired functions. In an aspect, the system comprises a processor (202) coupled to a memory (204). The memory (204) stores processor-executable instructions. The processor (202) is configured to receive pre-processed data from a plurality of parties. Further, the processor (202) is configured to apply discriminative dimensionality-reducing mappings to the pre-processed data to obtain a lower-dimensional representation of the data. Next, the processor (202) is configured to compute a function on the obtained lower-dimensional representation of the data. In the end, the processor (202) is configured to output a result of the computed function.

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