LOGISTIC REGRESSION MODELING SCHEME USING SECRET SHARING

ABSTRACT

Methods, systems, and apparatus, including computer programs encoded on computer storage media, for training a multi-party secure logistic regression model (SLRM). One of the methods includes receiving, at a plurality of secure computation nodes (SCNs), a plurality of random numbers from a random number provider; encrypting, at each SCN, data stored at the SCN using the received random numbers; iteratively updating a secure logistic regression model (SLRM) by using the encrypted data from each SCN; and after iteratively updating the SLRM, outputting a result of the SLRM, wherein the result is configured to enable a service to be performed by each SCN.

FIG. 1