1. Unlike traditional distributed learning systems, federated learning addresses issues such as low transparency and centralization. This is achieved through the utilization of blockchain technology, which enhances transparency by securely recording and verifying transactions, thus mitigating concerns related to data integrity and central control.
2. The second section provides an exposition of the research background. The third section comprehensively evaluates related works, examining both their advantages and limitations. In section 4, the proposed model is described, while in section 5, the experimental results are present.
3. Blockchain technology primarily serves as a decentralized and secure data storage solution. Initially popularized by the introduction of Bitcoin, it has since garnered widespread attention. Beyond its original application in cryptocurrency, blockchain serves as a distributed ledger system for executing and securely recording transactions, offering an alternative to traditional banking systems. Its decentralized nature and cryptographic protocols provide a robust framework for ensuring data integrity and transaction transparency.
4. In other words, these blocks store data in a transparent manner.
5. To solve this problem, the authors have trained a global model by federating learning.
6. Table VIII contains previous work results reported in [11]. In this work, the authors proposed a framework using a PSO-based aggregation mechanism in which each client performs the aggregation independently on his local device using PSO.