

Application of Federated Learning for medical problems

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Abstract: In the context of increasing demand for personal data security in the healthcare sector, this topic focuses on applying Federated Learning technology to improve the diagnosis and treatment of diseases. The goal is to build a clinical decision support system based on machine learning models trained on distributed data from various medical facilities without directly exchanging raw data. The research methodology includes both theoretical analysis and experimental implementation to evaluate system performance. The expected outcome is to provide a secure, flexible solution for processing medical data while promoting collaboration among medical facilities.

Keywords: Federated Learning, Medical Data Security, Clinical Decision Support