

Generating synthetic personal health data using conditional generative adversarial networks combining with differential privacy

Modeling Tabular Data using Conditional GAN

CAUSAL-TGAN: GENERATING TABULAR DATA
USING CAUSAL GENERATIVE ADVERSARIAL NET
WORKS

A Generative Adversarial Network (GAN) Technique for Internet of Medical Things Data

Research questions:

1. How can conversational AI techniques and LLMS be effectively integrated with generative models like GANs to incorporate human input for generating synthetic patient health data?
2. What are the limitations of current generative models in generating synthetic patient data that significantly diverges from the input, and how can these limitations be addressed?
3. What are the specific requirements for training generative models on healthcare data to ensure the generated synthetic data accurately reflects the statistical and structural properties of the original data?
4. How does the combination of LLM models (e.g., Clinical BERT, Chat-GPT) with GANs for synthesizing patient EHR data enhance the quality and usability of the generated data compared to standalone generative models?