DiagBot Technical Documentation

1. Overview

DiagBot is an AI system that provides automated preliminary medical diagnoses based on patient-reported symptoms and medical history. It is designed to assist medical professionals by highlighting potential conditions and suggested actions.

2. System Architecture

DiagBot consists of the following components:
- Input Module: Collects patient symptoms and medical history.
- Inference Engine: Processes input data using a combination of rule-based logic and statistical models to generate preliminary diagnoses.
- Output Module: Provides suggested conditions and recommended actions to the user.

3. Data Handling and Governance

DiagBot stores patient data securely, following privacy guidelines and applicable regulations. Sensitive identifiers are hashed, and all inputs are logged for audit purposes. Data preprocessing includes normalization, categorical encoding, and missing value handling.

4. Security & Compliance

- Access control with role-based permissions
- Encrypted storage of sensitive data
- Logging of all system interactions
- Compliance with EU AI Act requirements for high-risk medical AI systems

5. Example Interaction

User: 'I have chest pain and shortness of breath.'
DiagBot: 'You might be experiencing a cardiac event. Please seek emergency care immediately.'