Revolutionizing Liver Care: Predicting Liver Cirrhosis Using Advanced Machine Learning Techniques

Solution Requirements

To ensure the successful implementation of the predictive model, the following functional and non-functional requirements must be met:

Functional Requirements:

- Integration with Electronic Health Records (EHR) systems.
- Data preprocessing to clean and normalize medical records.
- Machine learning model capable of classifying risk levels based on patient data.
- Real-time or batch processing of new patient data.
- User-friendly interface for healthcare professionals to interpret results.
- Automated alerts for high-risk patients.

Non-Functional Requirements:

- High accuracy and reliability of predictions.
- Data security and compliance with healthcare regulations (e.g., HIPAA, GDPR).
- Scalability to handle increasing patient records over time.
- Low-latency processing for quick decision-making.
- Regular updates and retraining of the model with new medical data.