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Thème

Deep Learning Approaches for Blood Pressure Estimation via Photoplethysmography (PPG)

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Abstract

In a relentless pursuit to advance healthcare technology and offer enhanced patient care, we introduce MedMonitor, a sophisticated, cloud-native platform incorporating machine learning, aimed at refining patient management and facilitating blood pressure measurements using Photoplethysmogram (PPG) sensors in mobile phones. MedMonitor is structured around three specialized microservices: Patient Management, Measurement Scheduling, and Blood Pressure Estimation.

Each microservice is crafted meticulously, with the Patient Management service optimizing patient record handling, Measurement Scheduling ensuring consistent monitoring and timely interventions, and the Blood Pressure Estimation service capitalizing on advanced machine learning models to accurately assess blood pressure from PPG sensor data.

This integration of technology marks a significant stride in healthcare practices, enabling more proactive and personalized healthcare management. MedMonitor represents a synthesis of innovation and utility in healthcare, promising a future of accessible and efficient healthcare solutions, paving the way for enhanced mHealth applications.