



# AI-Driven Fall Detection Smartwatch and Virtual Patient Monitoring

## → BRIEF

The company, specializing in healthcare technology, aimed to develop an AI-driven fall detection smartwatch and virtual patient monitoring solution tailored for seniors. The smartwatch incorporated advanced sensors and AI algorithms to accurately detect and analyze falls in real-time, ensuring immediate assistance and intervention when needed.

# AI-Driven Fall Detection Smartwatch and Virtual Patient Monitoring

## → ACTIONS TAKEN

Develop an AI system within the smartwatch utilizing machine learning techniques to continuously learn and adapt to individual user behavior. It distinguished between everyday activities and potential falls based on motion patterns, acceleration, and orientation data. In case of a fall, the smartwatch triggers an alert, notifying caregivers or emergency services, along with providing the wearer's location.

Additionally, the virtual patient monitoring aspect of the solution enabled healthcare providers to monitor seniors' vital signs and activity levels remotely.

The smartwatch gathered data on heart rate, blood pressure, sleep patterns, and physical activity, transmitting this information securely to a centralized monitoring platform. The AI system analyzed this data to identify any abnormalities or concerning trends, alerting healthcare professionals when intervention or adjustment in care was required.

## → OUTCOMES

Development of an AI-driven fall detection smartwatch for seniors.

Integration of advanced AI algorithms for accurate fall detection.

Virtual patient monitoring of vital signs and activity levels.

Improved safety, independence, and peace of mind for seniors.

Optimal resource allocation for healthcare providers.

Real-time alerts and location sharing for immediate assistance.