





Al/ML-based pressure injury prediction



Real-time pressure point visualization

92%

Accuracy in identifying high-risk areas

80%

Accuracy in injury prediction and posture detection

## Client

A healthcare startup focused on developing intelligent, connected solutions that derive actionable insights from patient sensor data in a non-intrusive manner. Manual analysis was time-consuming and lacked predictive accuracy, leading to delayed intervention.

#### **Business Need**

Prolonged immobility and restricted blood flow make patients highly vulnerable to pressure injuries. These injuries lead to pain, infections, longer hospital stays, and higher treatment costs.

To prevent such issues and improve care outcomes, the client needed a real-time, intelligent platform to process continuous patient sensor data, detect pressure points, and predict injury risks early.

#### A solution that encompasses:



**Integration** of diverse sensor data and EMR systems



Accurate AI/ML models for accurate injury prediction



**Clear visualizations** of patient risk zones for faster clinical response



**Strict adherence** to data privacy and compliance standards



**Innominds** Case Study

### **Solution**

Innominds developed an Al-driven pressure injury prediction platform integrated with Smartsheet and a connected Data Box to ingest, analyze, and visualize continuous patient sensor data in real time. The platform enabled clinicians to proactively monitor high-risk patients and take timely preventive actions.



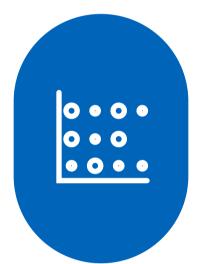
#### **Key solution components included:**



**AI/ML models** for real-time analysis of pressure point data, tissue stress patterns, and injury likelihood



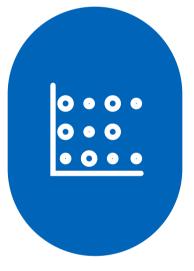
Data visualization layer (web/hybrid app) displaying heatmaps, patient risk scores, and alerts through an intuitive UI



Heatmap generation for localized pressure analysis across critical body zones (e.g., sacrum, shoulders, heels)

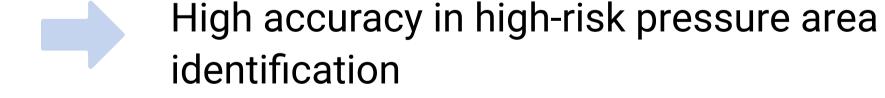


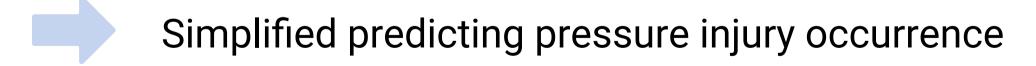
**Predictive analytics** for early injury alerts and posture adjustment recommendations



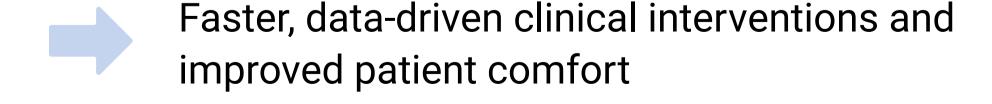
Secure data integration ensuring compliance with healthcare privacy standards

#### **Value Delivered**









# **Tools & Technologies Used**

**Python** 

**AWS** 

Node.js

Ionic (Hybrid App)

AI/ML

**Deep Learning** 

**Application Development** 

Transform Patient Monitoring with Al Predict Smarter. Prevent Faster. Care Better

Reach out to marketing@innominds.com

