



Lacey Pacey: Tracking Foot Health and Preventing Injuries

Thien Vo

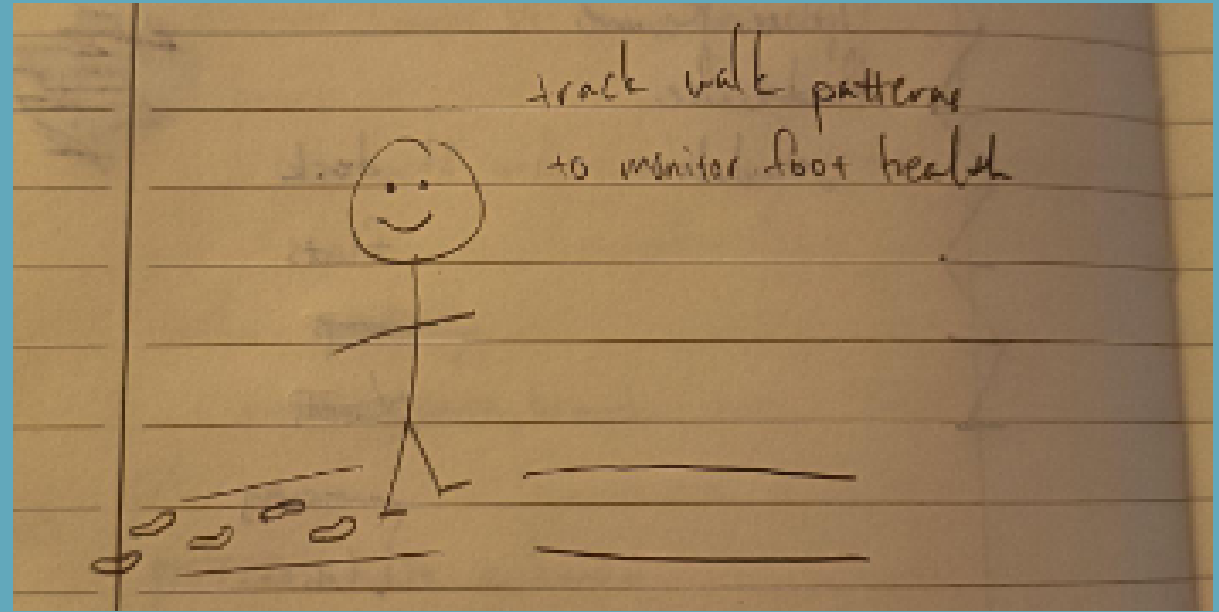
MEng, Design & Technology Innovation



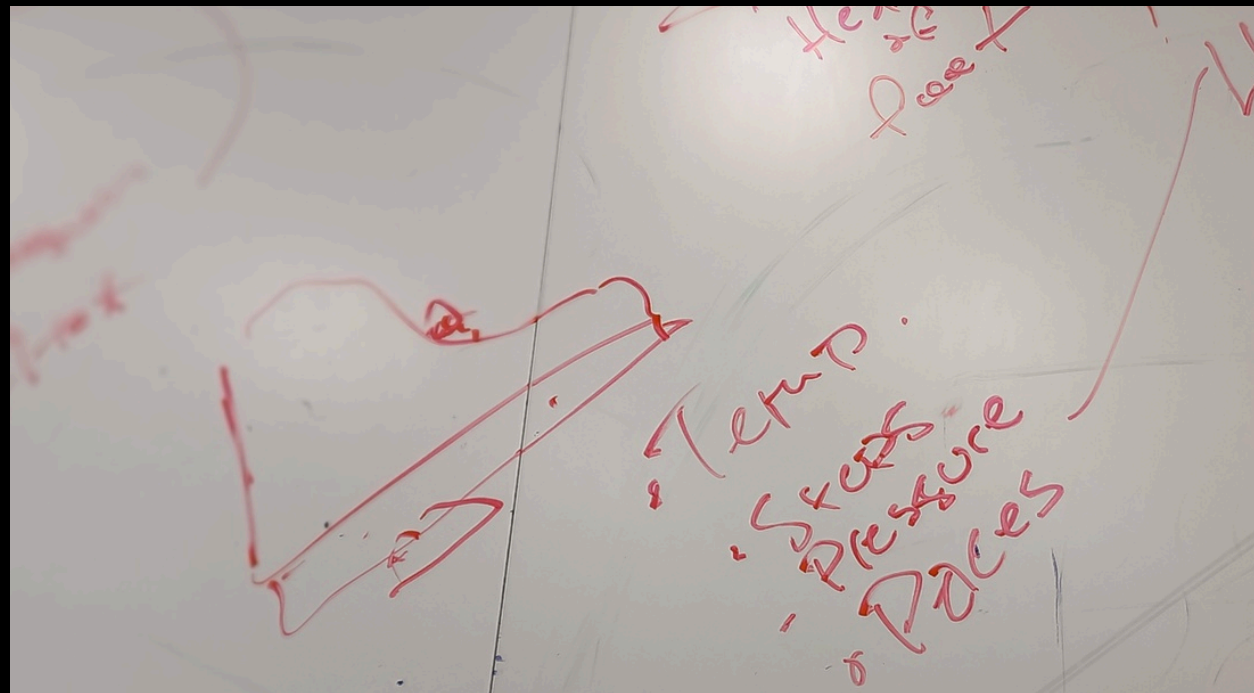
velcro tack to hold in place

motion and pressure
sensors throughout lace
for activity tracking and
gait analysis

LED lights at tips for visual cues



track walk patterns
to monitor foot health



Here feet

- Step
- Steps
- Pressure
- Paces

 Temperature
32°C

 Pressure
Normal

 Steps
8654

 Pace
5.2 km/h

Feet Health Status



Your feet health is excellent. Keep maintaining your current habits.

Predicted status change to yellow in 5 days if pace increases, consider maintaining your pace or taking frequent breaks between your exercise.

Introducing Lacey Pacey

Lacey Pacey is an innovative mobile application that utilizes advanced sensors embedded in shoes to continuously monitor the health and well-being of your feet.

Key Metrics Tracked



Temperature

Measures the warmth of your feet, which can indicate inflammation or poor circulation.



Pressure

Monitors the distribution of weight across your feet, detecting areas of high pressure that may lead to blisters or calluses.



Steps

Tracks your daily activity levels, providing insights into your overall foot health and mobility.

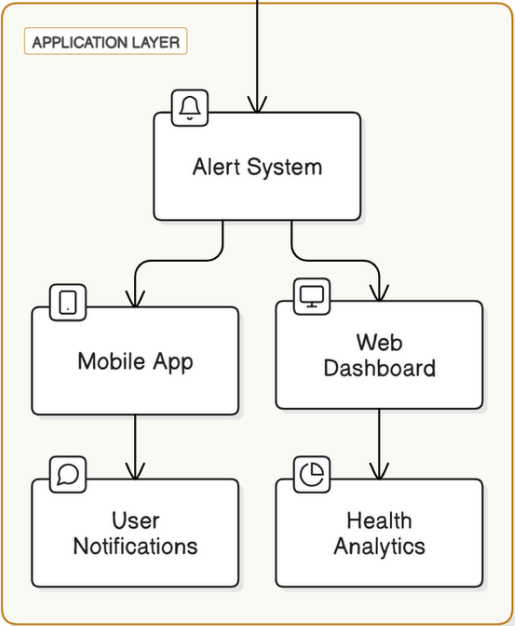
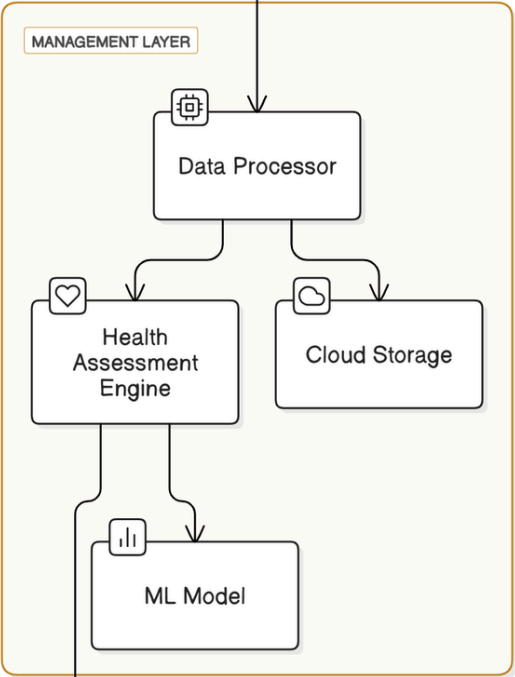
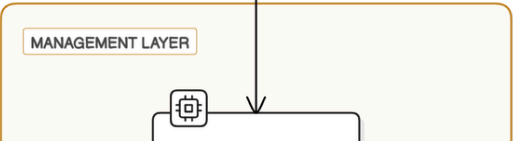
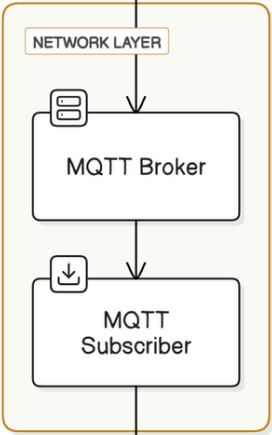
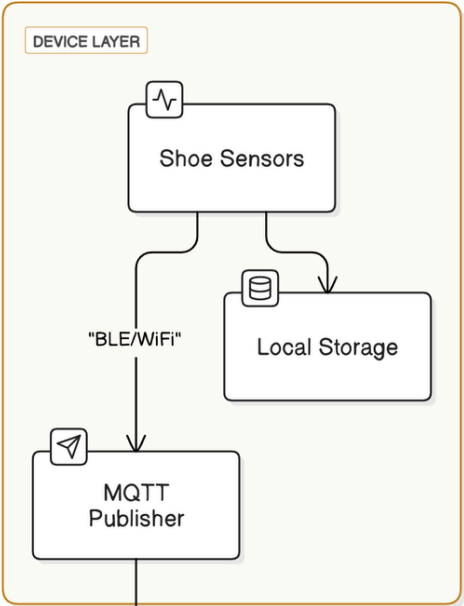


Pace

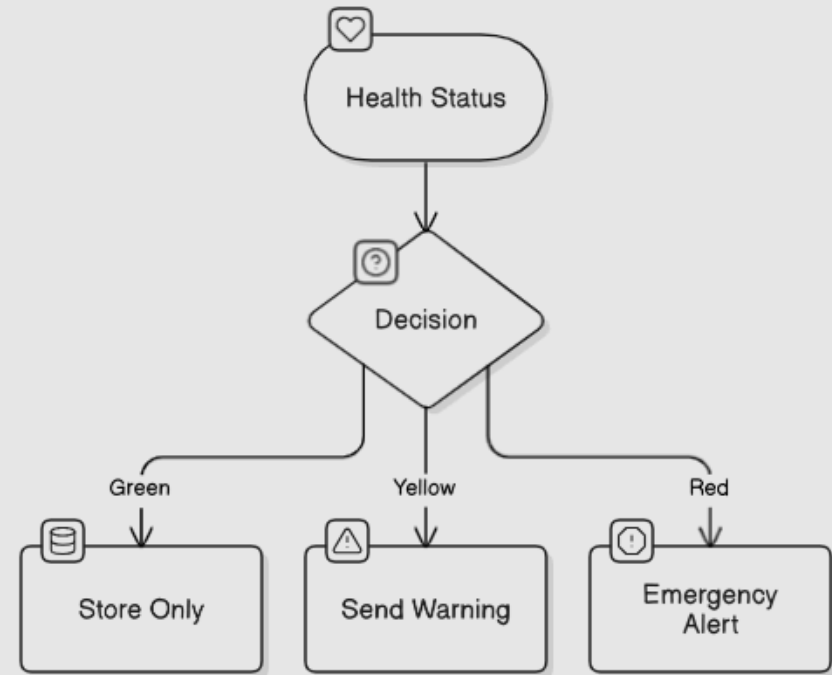
Analyzes your walking or running speed, which can help identify gait issues or areas for improvement.

By monitoring these key metrics, Lacey Pacey helps you proactively manage your foot health and prevent potential problems before they become serious.

Lacey Pacey System



Foot Health Insights



Healthy (Green)

Sensor data indicates your feet are functioning optimally, with no signs of strain or potential issues. This green indicator signals that your foot health is in a good state.

Caution (Yellow)

The sensor data suggests potential minor issues or signs of strain in your feet. This yellow indicator alerts you to be more mindful of your foot health and consider taking preventative measures.

Potential Injury (Red)

Based on the sensor data, this red indicator signifies that your feet may be experiencing significant strain or are at risk of injury. This is a clear warning to take immediate action and consult a healthcare professional.

Predictive Analytics



Next Steps



AI Chatbot

- Recommendations
- What if scenarios