

Life-Stand

A video enabled emergency fall detection and alert system for the sick and elderly





The Team

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How is this project relevant ?

1 in 4

One in four Americans aged 65+ falls each year

Every minute counts

Every 11 seconds, an older adult is treated in the emergency room for a fall; every 19 minutes, an older adult dies from a fall

Medicare?

The financial toll for older adult falls is expected to increase as the population ages and may reach \$67.7 billion by 2020.



Source: National Council of Aging

<https://www.ncoa.org/news/resources-for-reporters/get-the-facts/falls-prevention-facts/>

Features



LifeStand

1

Human skeletal Image processing
ML based model with high accuracy

2

Smart Alert: Family/ emergency
contact Notification service

3

911 - Emergency Notification

4

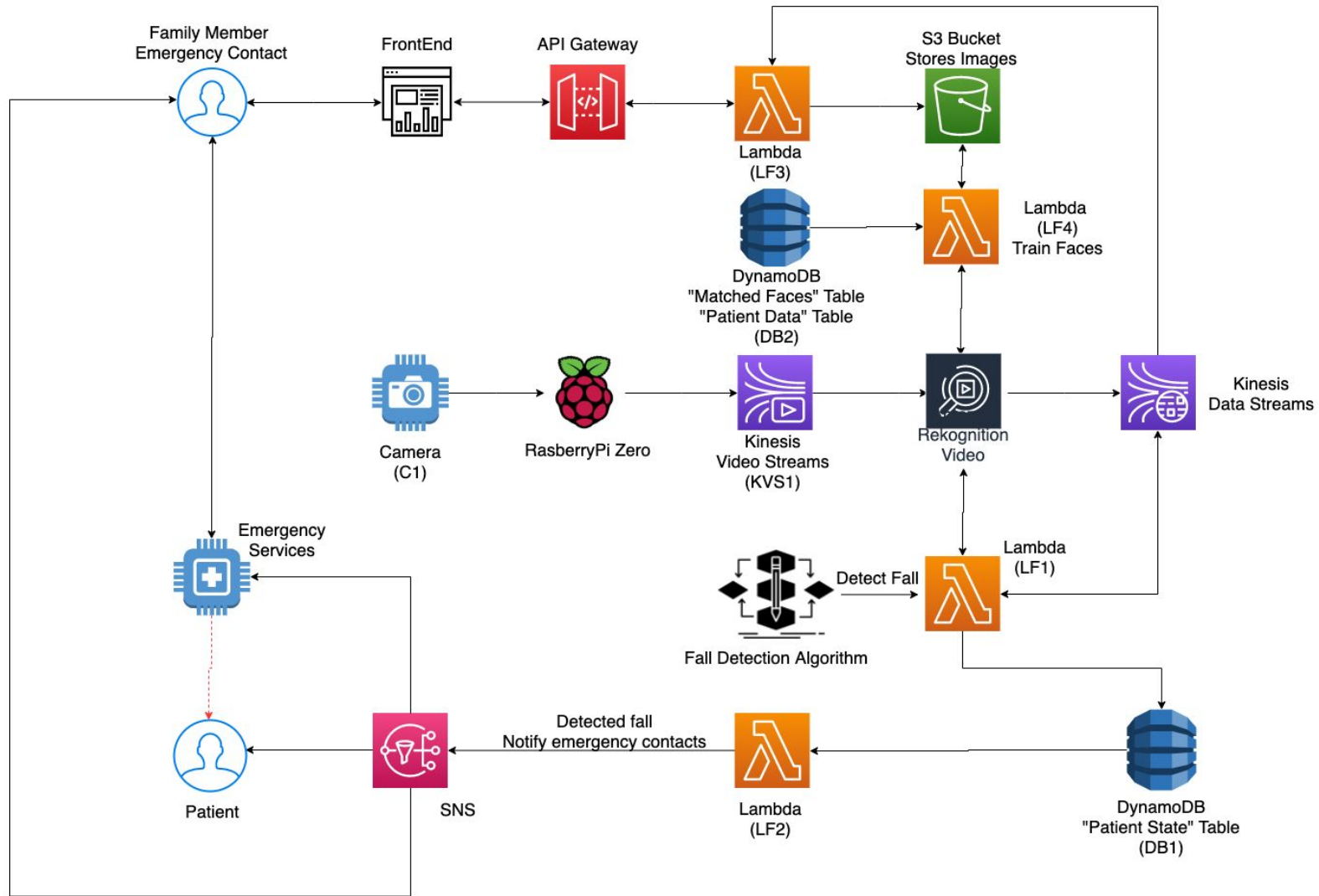
Multi user UI with LIVE video



Architecture Design

LifeStand's Core Components





Interface

LifeStand



Easy patent registration.

Edit patient info

Camera Id

Patient ID

Patient Name

Emergency Contactor Name

Emergency Contact Number

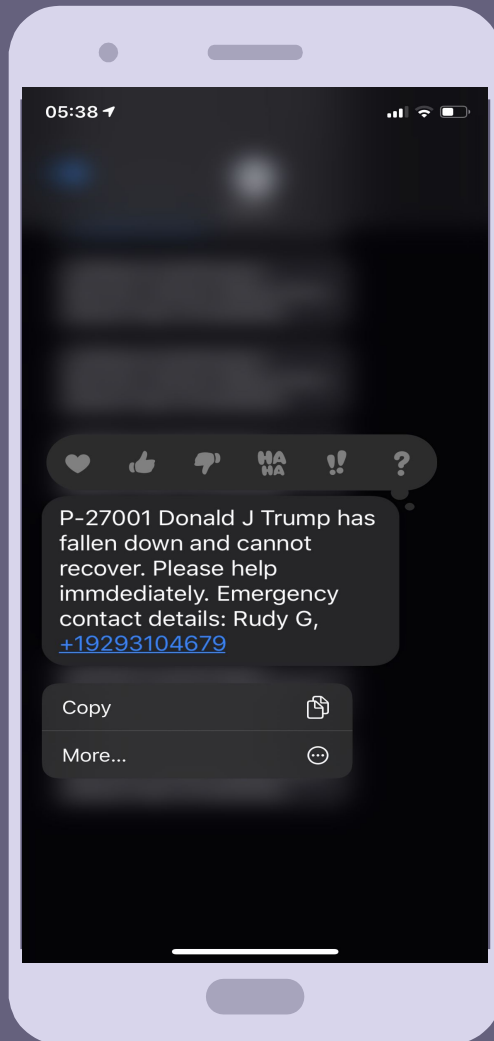


The Fall Detection Algorithm

- Machine learning inspired algorithm.
- Using AWS rekognition and open CV library



Mobile Notifications

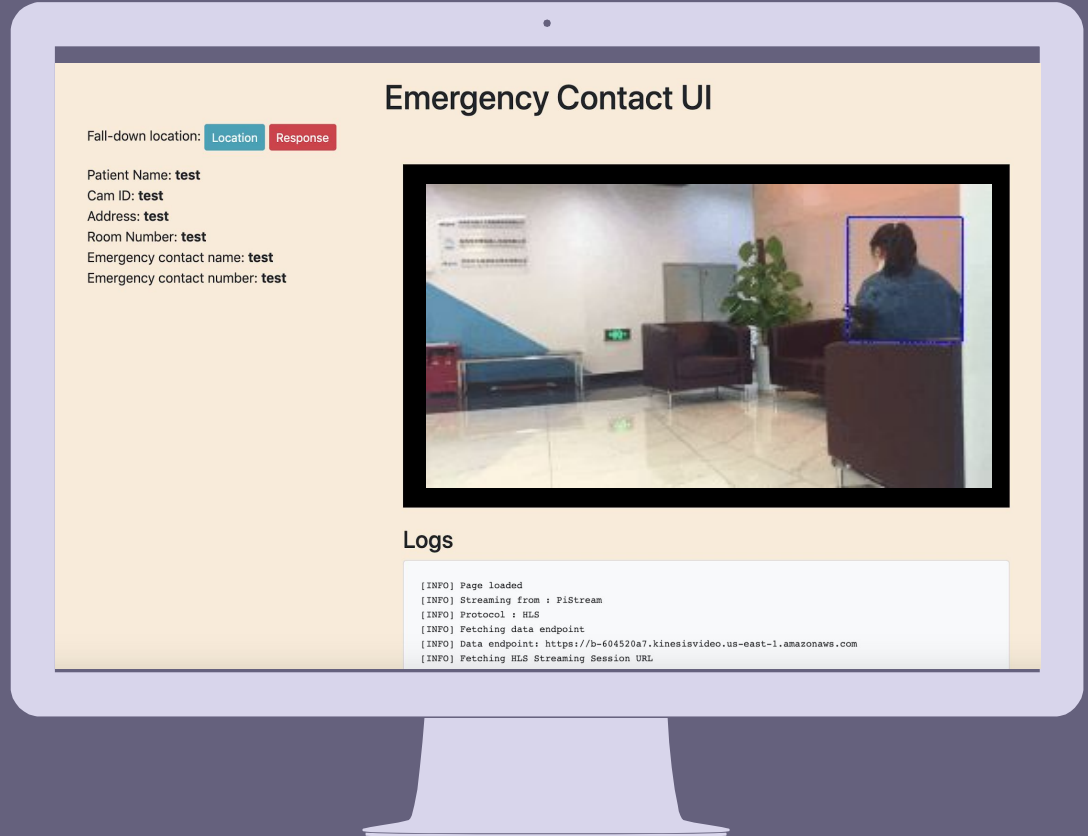


Emergency Services will receive a notification with the patient's name, id, his emergency contact name and phone number.



Emergency contact and Family Member UI

- Live video feed
- Google Map for location
- Patient medical records
- Quick access to 911 call button
- Real time logging



Emergency services API



- Customizable API to contact emergency services.
- Provides medical record for first aid
- Provides accurate location with directions



Sources:

<https://www.piercecountywa.gov/6100/Text-to-911>

https://upload.wikimedia.org/wikipedia/en/thumb/6/65/New_York_City_Fire_Department_Emblem.svg/150px-New_York_City_Fire_Department_Emblem.svg.png

Thanks!

We will now take all
your questions after
the DEMO

