

**MICHIGAN STATE**  

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**U N I V E R S I T Y**

# Beta Presentation

## LIMElight: Life Insurance Made Easy

The Capstone Experience

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*From Students...  
...to Professionals*

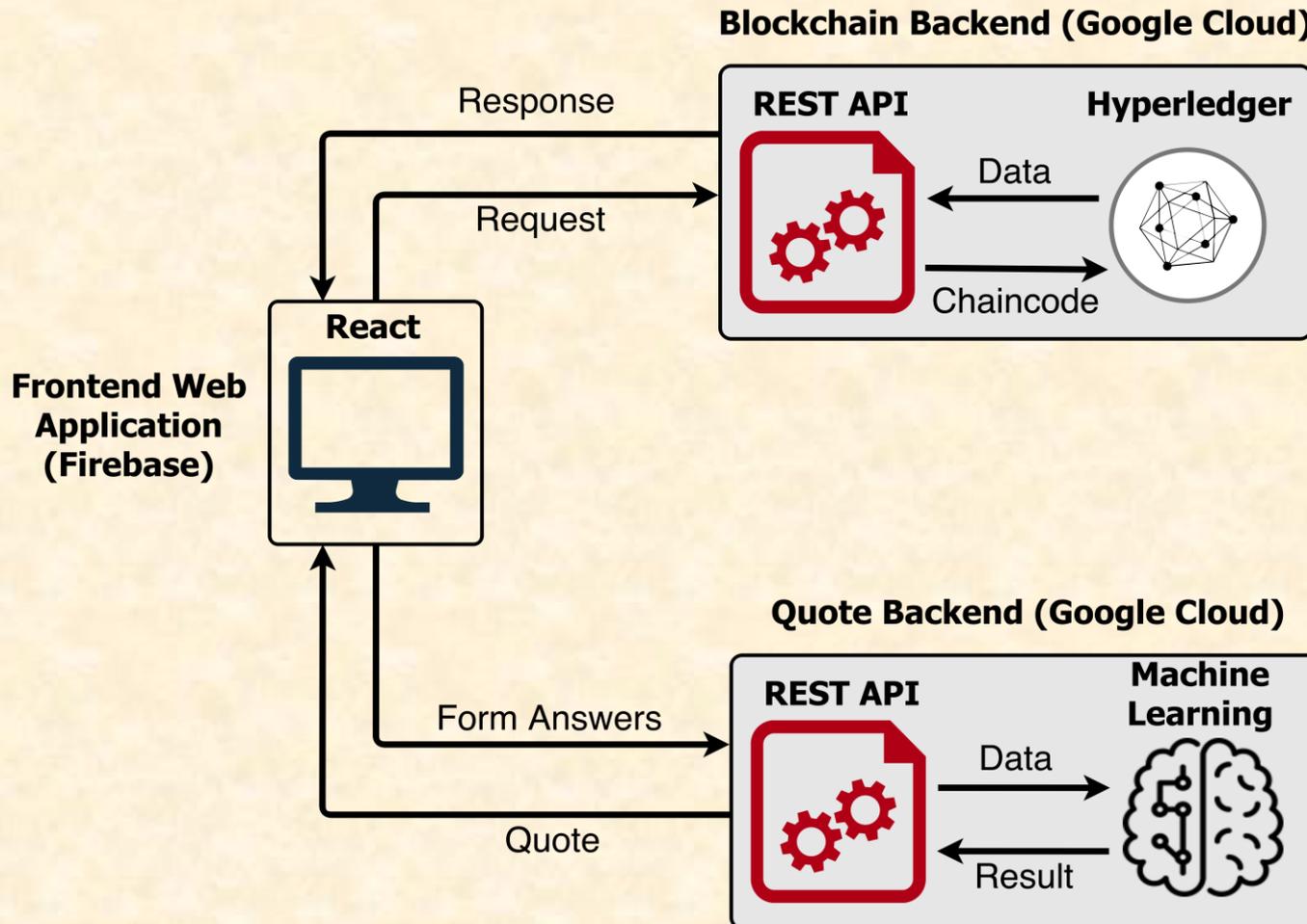
# Project Overview

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- Improve life insurance application process for all parties
- Two components
  - Generating personalized term life insurance quotes using machine learning
  - Storing and sharing medical records with blockchain technology



# System Architecture



# Get A Quote

USAA®

Get A Quote About Visit USAA

## Get A Life Insurance Quote

✓ Age

2 Height

6 ft 3 in

BACK NEXT

3 Coverage Amount

4 Recent Car Accidents

5 Recreational Flying

GET A QUOTE



# Quote Result



[Get A Quote](#) [About](#) [Visit USAA](#)

## Your Personalized Quote

Price

**\$60/Month**

Quote ID

**13611**

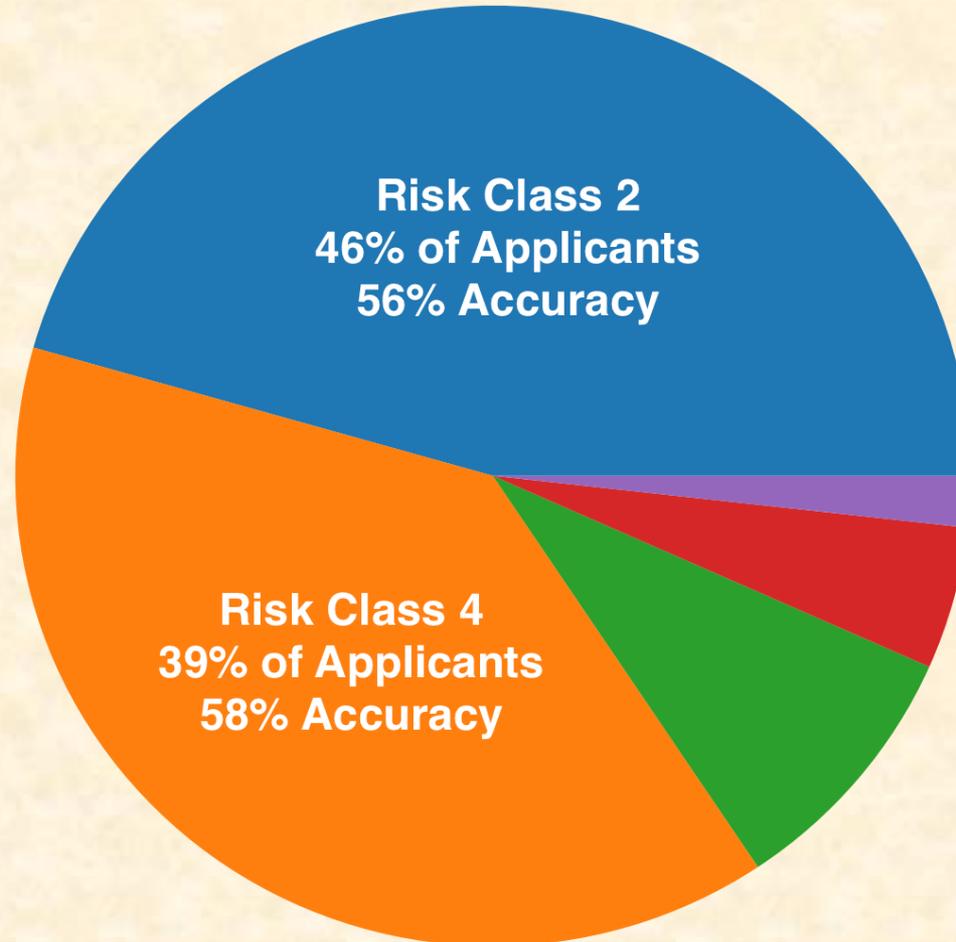
**Next Steps**

Contact USAA today with your Quote ID to get started

[1-800-531-USAA](tel:1-800-531-USAA)



# Dataset Analysis



# Upload Business Card

HealthChain Logout

## No Business Cards Imported

You do not have any business cards to interact with HealthChain. Please upload one below.

Along with your business card, you need to specify who you are on the network and *HealthChain* will attempt to verify that information.

bob-jones-pa...hchain.card

User ID:

▾



# Patient Dashboard - Home

HealthChain My Dashboard Logout

[Home](#) [Add Practitioner](#) [Remove Practitioner](#) [Add Third Party](#) [Remove Third Party](#)

## Welcome Bob Jones

Your ID: bob@gmail.com

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### Your Medical Record

**Patient Name:** Bob Jones  
**Medical Record Type:** Emergency Encounter

**Encounter Summary**  
**Weight:** 160 Lbs  
**Gender:** Male  
**Height:** 70 Inches  
**Symptom I:** Irregular Heartbeat  
**Symptom II:** Chest Pain  
**Symptom III:** Short of Breath  
**Medications Administered:** Aspirin  
**Encounter Outcome:** Transferred to Cardiac Unit

[Export Medical Record](#)



# Patient Dashboard – Add Practitioner

The screenshot shows a web browser window with the URL `https://msu-cse-498-healthchain.firebaseio.com/patient-dashboard/authorize-practitioner`. The page title is "HealthChain" and it includes navigation links for "My Dashboard" and "Logout". A menu bar contains "Home", "Add Practitioner" (highlighted in blue), "Remove Practitioner", "Add Third Party", and "Remove Third Party".

## Authorize a Practitioner

You can search for a practitioner below and click the **Authorize** button to give them access to your medical records.

First Name	Last Name
Dr. Dimitri	Aharoni
dr.Mariel-Bailey@olin.edu	
<b>Authorize</b>	
Dr. Willow	Basketter
dr.Ashley-Zulauf@olin.edu	
<b>Authorize</b>	
Dr. Pat	Bewsy
dr.Glady-Kerluke@olin.edu	
<b>Authorize</b>	



# Patient Dashboard – Add Third Party

The screenshot shows a web browser window with the URL `https://msu-cse-498-healthchain.firebaseio.com/patient-dashboard/authorize-third-party`. The page header includes the 'HealthChain' logo and navigation links for 'My Dashboard' and 'Logout'. A secondary navigation bar contains links for 'Home', 'Add Practitioner', 'Remove Practitioner', 'Add Third Party' (highlighted in blue), and 'Remove Third Party'. The main heading is 'Authorize a Third Party', followed by an explanatory paragraph: 'You can search for a third party below and click the **Authorize** button to give them access to your medical records.'

Below the text is a search interface with two input fields labeled 'First Name' and 'Last Name'. Three search results are displayed as cards:

- Lesley Bellamy**  
Delfina-Monahan@weightwatchers.com  
**Authorize**
- Rabi Codner**  
Megan-Ziemann@fitbit.com  
**Authorize**
- Molly Cranch**  
Leshia-Mills@fitbit.com  
**Authorize**



# Patient Dashboard – Revoke Practitioner

The screenshot shows a web browser window with the URL `https://msu-cse-498-healthchain.firebaseio.com/patient-dashboard/revoke-practitioner`. The page title is "HealthChain" and the navigation bar includes "My Dashboard" and "Logout". The main navigation menu has "Home", "Add Practitioner", "Remove Practitioner" (highlighted in blue), "Add Third Party", and "Remove Third Party".

## Remove a Practitioner

You can search for a practitioner below and click the **Revoke** button to revoke their access to your medical records.

First Name	Last Name
Dr. Madelene	Breeze
dr.Ethelyn-Adams@olin.edu	
<b>Revoke</b>	
Dr. Inge	Carlucci
dr.Ahmad-Bechtelar@olin.edu	
<b>Revoke</b>	
Dr. Kris	Cattrall
dr.Shayna-Walker@olin.edu	
<b>Revoke</b>	



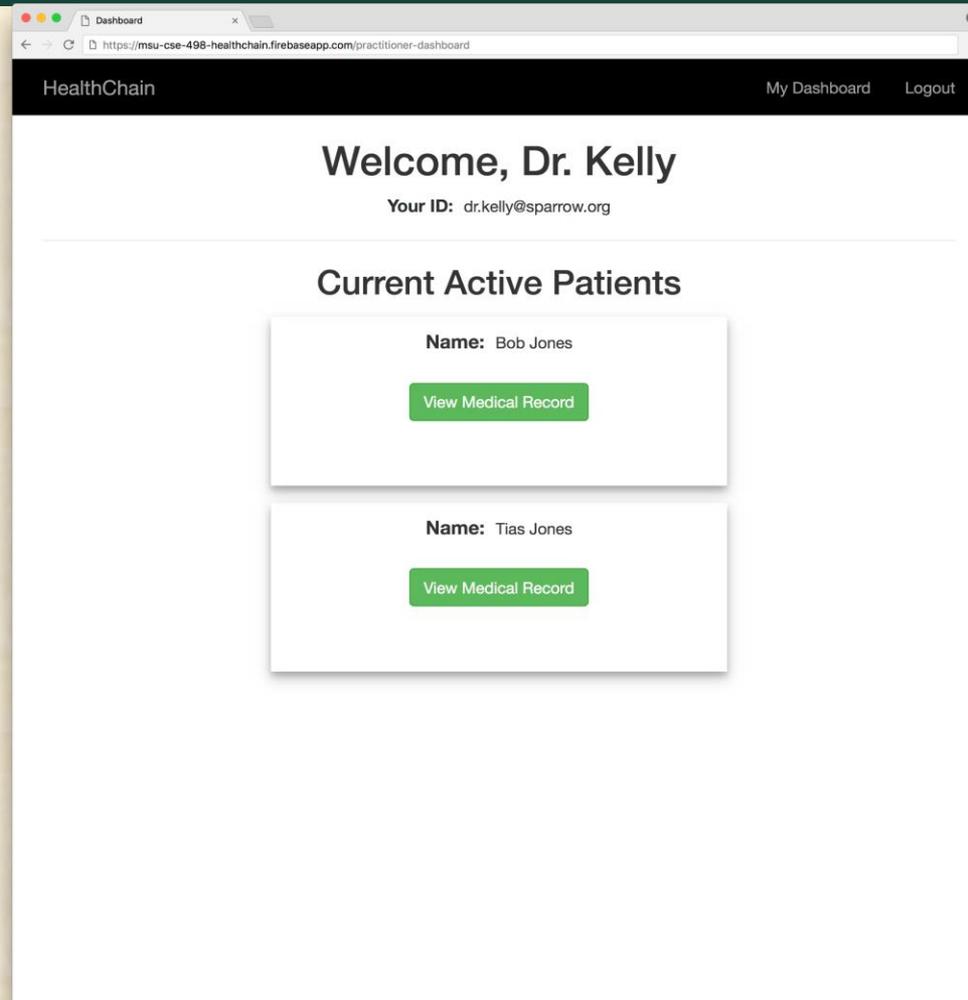
# Patient Dashboard – Revoke Third Party

The screenshot shows a web browser window with the URL `https://msu-cse-498-healthchain.firebaseio.com/patient-dashboard/revoke-third-party`. The page header includes the 'HealthChain' logo, 'My Dashboard', and 'Logout' links. A navigation bar contains 'Home', 'Add Practitioner', 'Remove Practitioner', 'Add Third Party', and a highlighted 'Remove Third Party' button. The main heading is 'Remove a Third Party', followed by instructions: 'You can search for a third party below and click the **Revoke** button to revoke their access to your medical records.'

Below the instructions is a search table with columns for 'First Name' and 'Last Name'. Three entries are listed, each with a 'Revoke' button:

First Name	Last Name
Rudy Ewbank	
Roni-Gerlach@fitbit.com	
Revoke	
Beverie Fritschel	
Stephen-Rice@usaa.com	
Revoke	
Corliss Goodbarr	
Petronila-Franecki@usaa.com	
Revoke	

# Practitioner Dashboard



# Practitioner View Medical Record

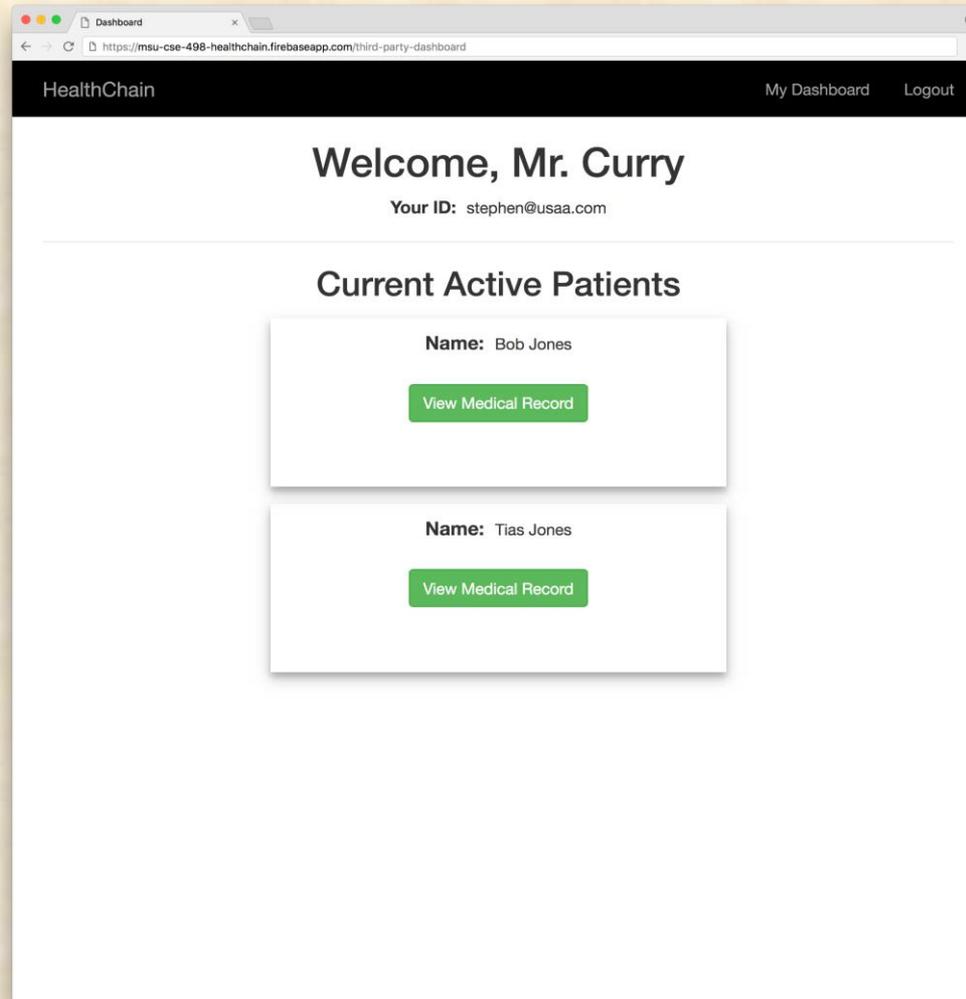
The screenshot shows a web browser window with the URL `https://msu-cse-498-healthchain.firebaseio.com/medical-record/bob@gmail.com`. The application header is "HealthChain" with "My Dashboard" and "Logout" links. A "Back" button is in the top left. The main heading is "Viewing Bob Jones's Medical Record". The record details are as follows:

- Patient Name:** Bob Jones
- Medical Record Type:** Emergency Encounter
- Encounter Summary**
  - Weight:** 160 Lbs
  - Gender:** Male
  - Height:** 70 Inches
  - Symptom I:** Irregular Heartbeat
  - Symptom II:** Chest Pain
  - Symptom III:** Short of Breath
- Medications Administered:** Aspirin
- Encounter Outcome:** Transferred to Cardiac Unit

Below the record details are two buttons: "Edit Medical Record" and "Export Medical Record".



# Third Party Dashboard



# What's left to do?

- Implement stretch goal features
  - Practitioner medical record editing on frontend
  - Stepper UI for LIMELight frontend
  - Improve UI for HealthChain
- Determine the upper bound of machine learning performance given the current dataset



# Questions?

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