HACKCMU 2024 PROJECT



PROBLEM STATEMENT

The average American pays too much for health insurance.

Private health insurance plans charge 2X MORE than Medicare alternatives.

\$7.7 BILLION in health spending is lost yearly to private insurers.

156 MILLION Americans rely on work-sponsored insurance programs.



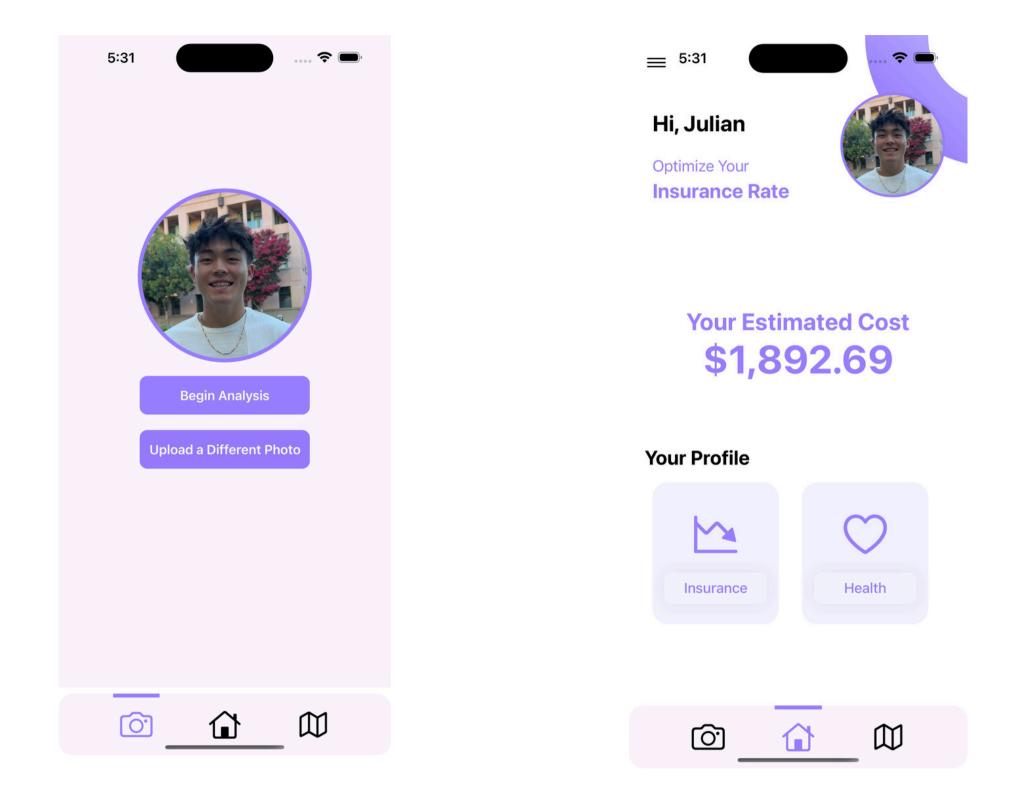


InsurAI

A comprehensive, AI-powered healthcare financial matter that puts Americans on equal footing with equal pharma.



FRONT-END



Profile Creator

Home Screen Insurance Calculator





Nearby Prices

HOW IT WORKS

Data Analysis



Hospital Insurance Rates Expected Insu

Machine Learning

 Facial Image
 →
 Overall Healthcare Metric

 Health
 →
 Predicted Fair Insurance Rate (PFIR)



Comprehensive Facial Imaging Dataset

Expected Insurance Rate Per Locality

DATA ANALYSIS

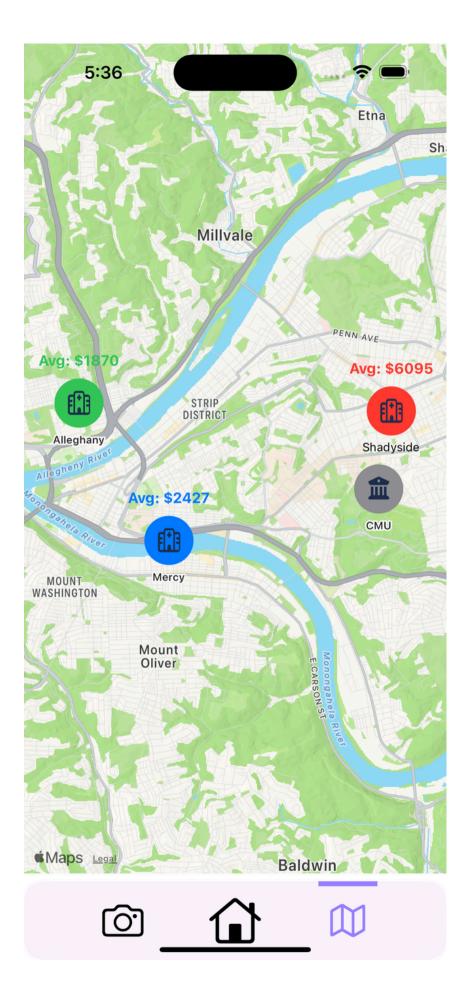
We measured the following data metrics:

- Standard charge data
- UPMC Price Estimator Tool
- Insurance Price Data

Calculated expected insurance rate at various hospitals in the locality

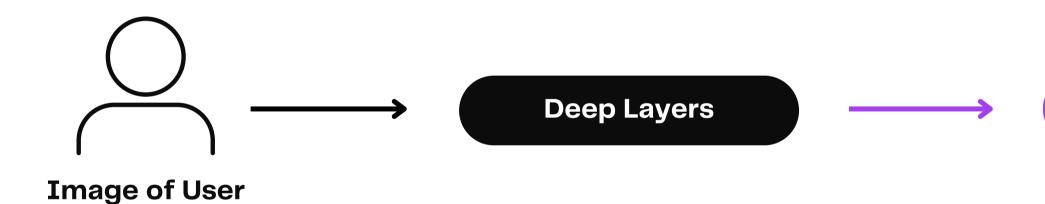
Comprehensive visualization through Maps Interface





MACHINE LEARNING

Using our comprehensive facial imaging database, we created a model to calculate the overall healthcare metric:

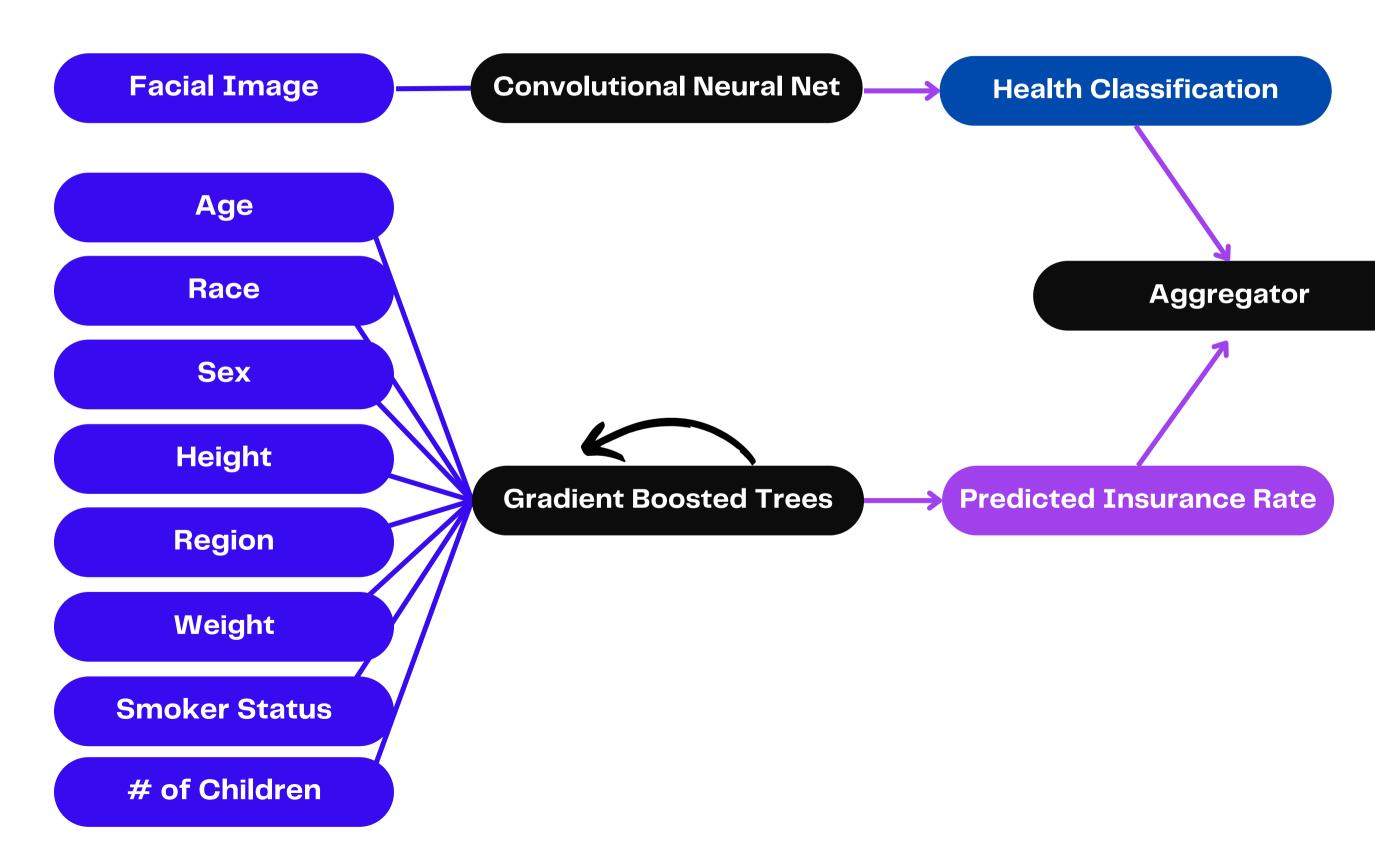




Overall Healthcare Metric

MACHINE LEARNING

Our infrastructure consists of two models: a series of 100 gradient boosted trees, a CNN, and an aggregator.

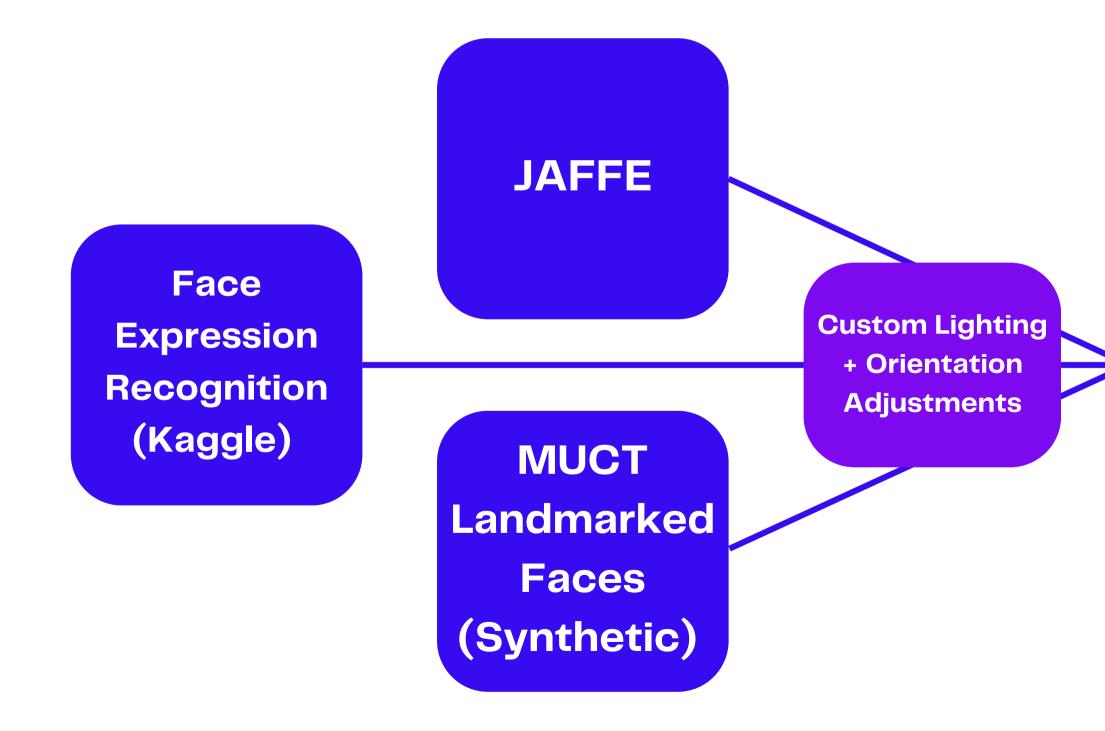




PREDICTED FAIR **INSURANCE** RATE (PFIR).

DATA ANALYSIS

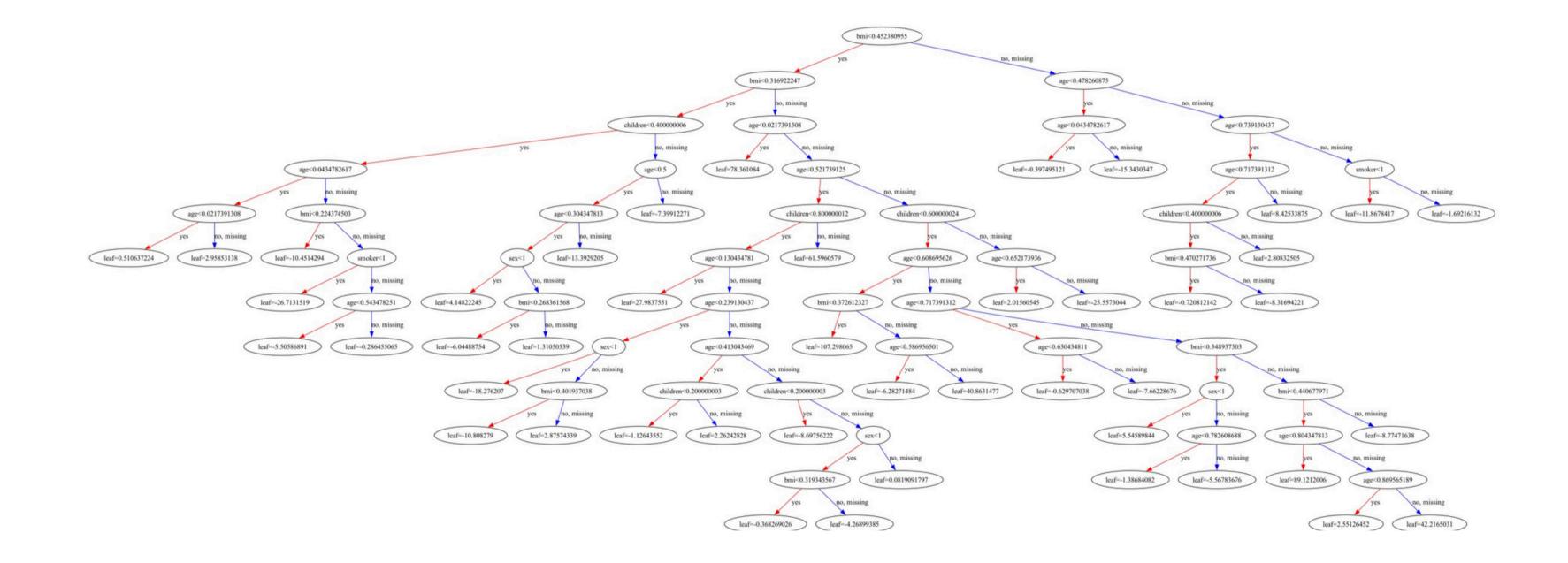
By cleaning and combining various datasets, we were able to create a comprehensive facial image dataset.





Combined facial image dataset

MACHINE LEARNING





App Demo

Thank You!

