Heart Attack Analysis

Justin Lee

Overview

Analyst: Justin Lee

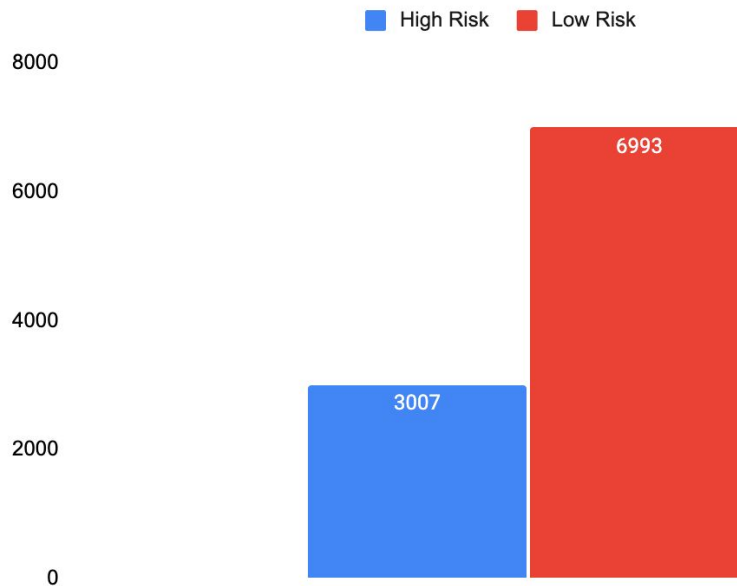Stakeholder: Ministry of Health and Family Welfare (MoHFW)

Motive: Leveraging ML models to identify high-risk characteristics to heart attacks and allocate medical resources accordingly, which can be used for public awareness and public health initiatives targeting key risk factors.

सत्यमेव जयते

Ministry of Health & Family Welfare
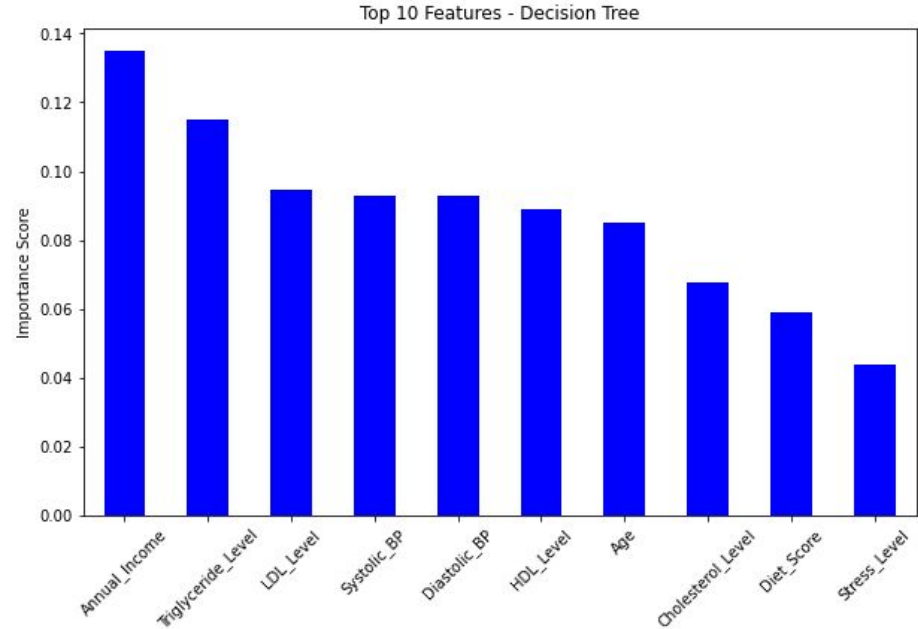**Government of India**

Data Understanding

- 10,000 patient records
- 25 categorical features
- 0 null values
- Target class imbalance

Decision Tree Model Evaluation

- Accuracy: 50%
- Confusion Matrix
  - 456 true negatives
  - 447 false positives
  - 463 false negatives
  - 439 true positives
- Classification report (target class)
  - Precision: 0.50
  - Recall: 0.49
  - **F1-Score: 0.49**

Top 10 Feature Analysis

Next Steps

1. Expand on data limitations of binary values
2. Sub-factors of annual income/socioeconomic level
   a. Health insurance type
   b. Coverage level
   c. Out-of-pocket costs
   d. Employment tier
3. Draft evidence-based policy interventions

Contact Information

Justin Lee

Email: jlee8150@gmail.com

LinkedIn:
https://www.linkedin.com/in/justinlee2023/