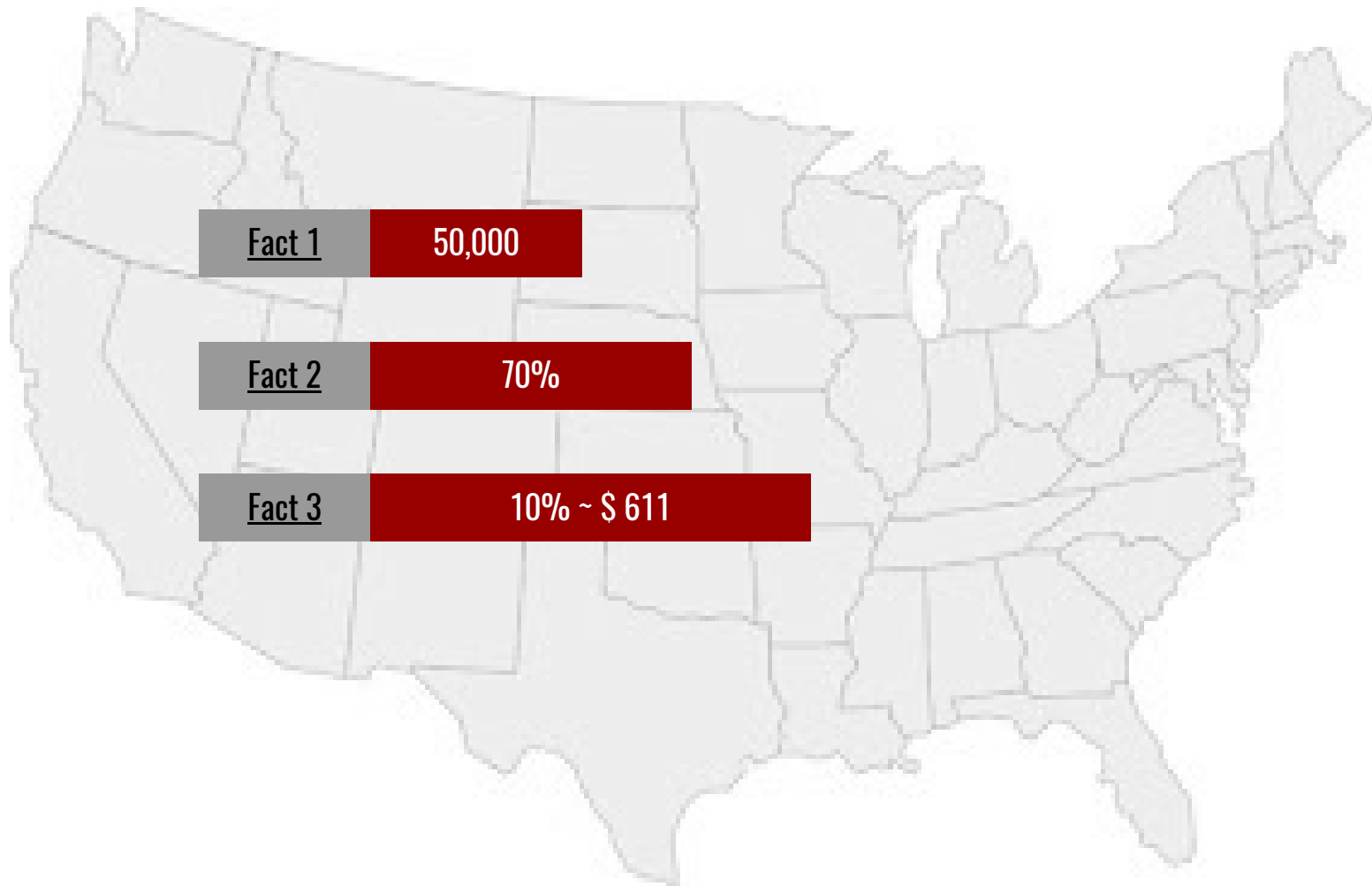


Will you
get a
ticket?





Question1:

Can we predict if a driver gets ticket after pulled over?

Question2:

What factors will affect a police officer's decision?



Data (Connecticut State 2013-2015)

Police Info

- ID
- Department

Driver Info

- Age
- Gender
- Race

Case Info

- Date
- Time
- Location
- Duration
- Violation
- Search
- Contraband
- Outcome



THE STANFORD OPEN POLICING PROJECT

On a typical day in the United States, police officers make more than 50,000 traffic stops. Our team is gathering, analyzing, and releasing records from millions of traffic stops by law enforcement agencies across the country. Our goal is to help researchers, journalists, and policymakers investigate and improve interactions between police and the public.

[VIEW DATA](#)

Modeling Process

Clean Data

Pandas
PostgreSQL
Jupyter
Notebook

Categorize

Pasty

Run Models

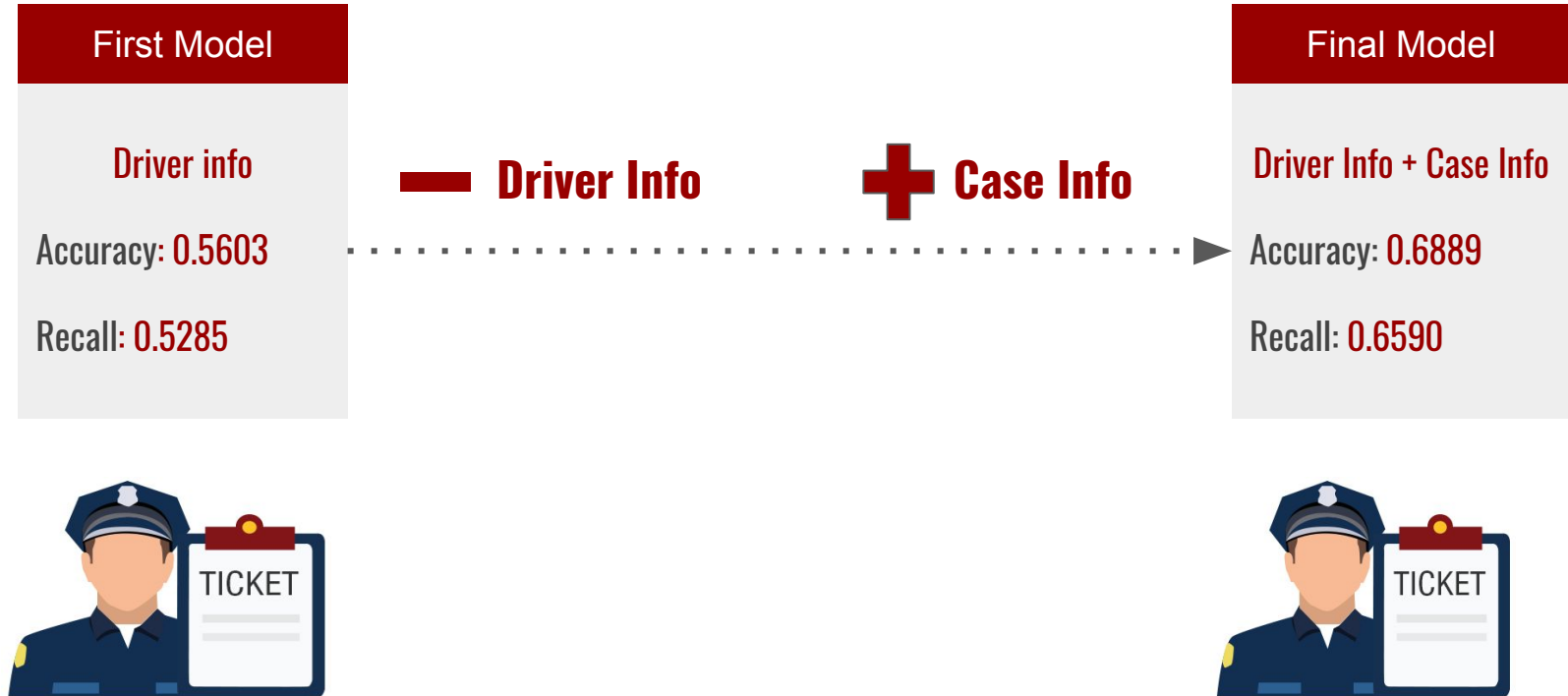
KNN
SVM
GaussianNB
Logistic Regression
Decision Tree
Random Forest

Undersampling

Training
set

Random Forest

Model Performance



Important Features

1. Violation (0.45)

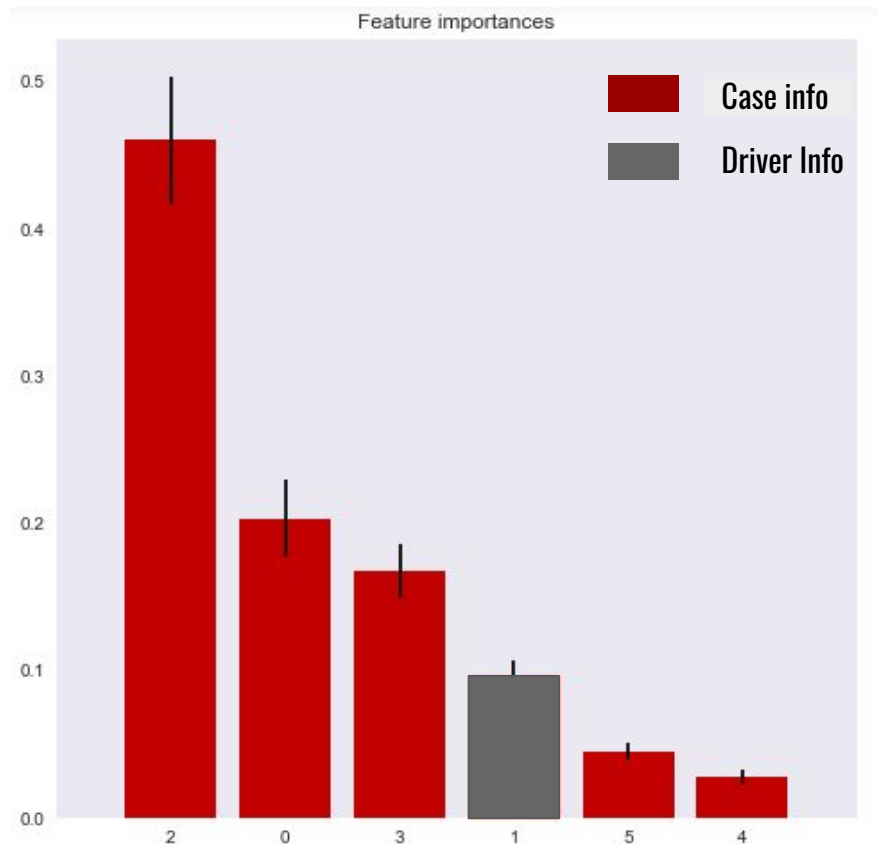
2. County (0.21)

3. Stop Duration (0.17)

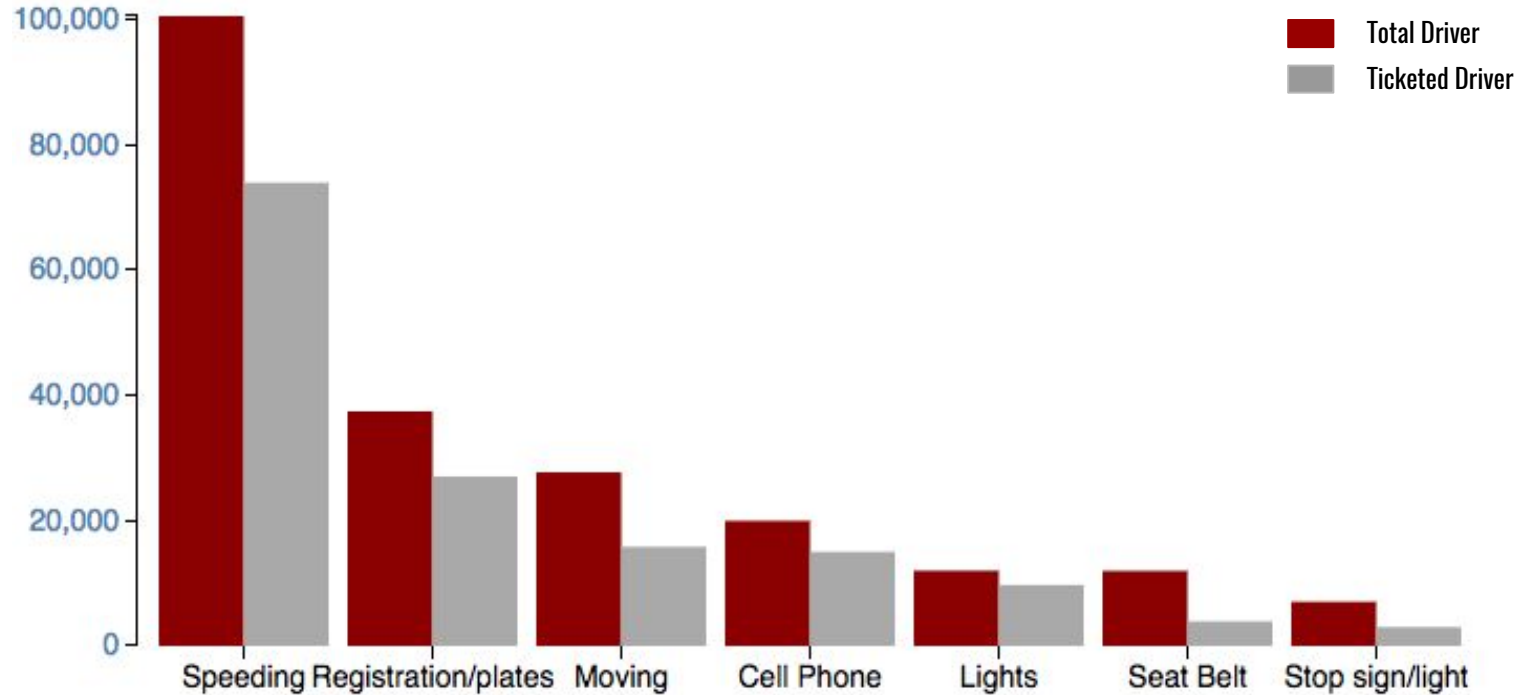
4. Driver's Age (0.09)

5. Day of Month (0.04)

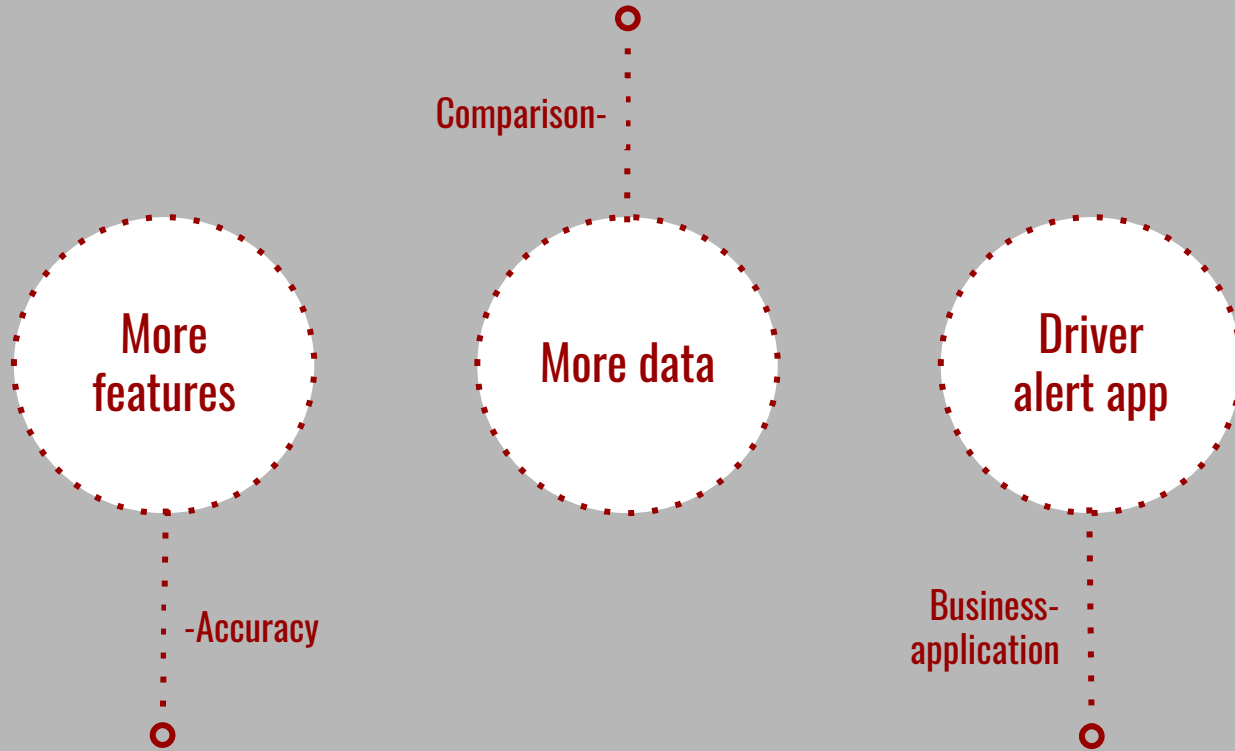
6. Day of Week (0.03)



Total VS. Ticketed Drivers



Future Work



Thank you!

