



# Homeland Security

## Access Demystified

Does America Want You?

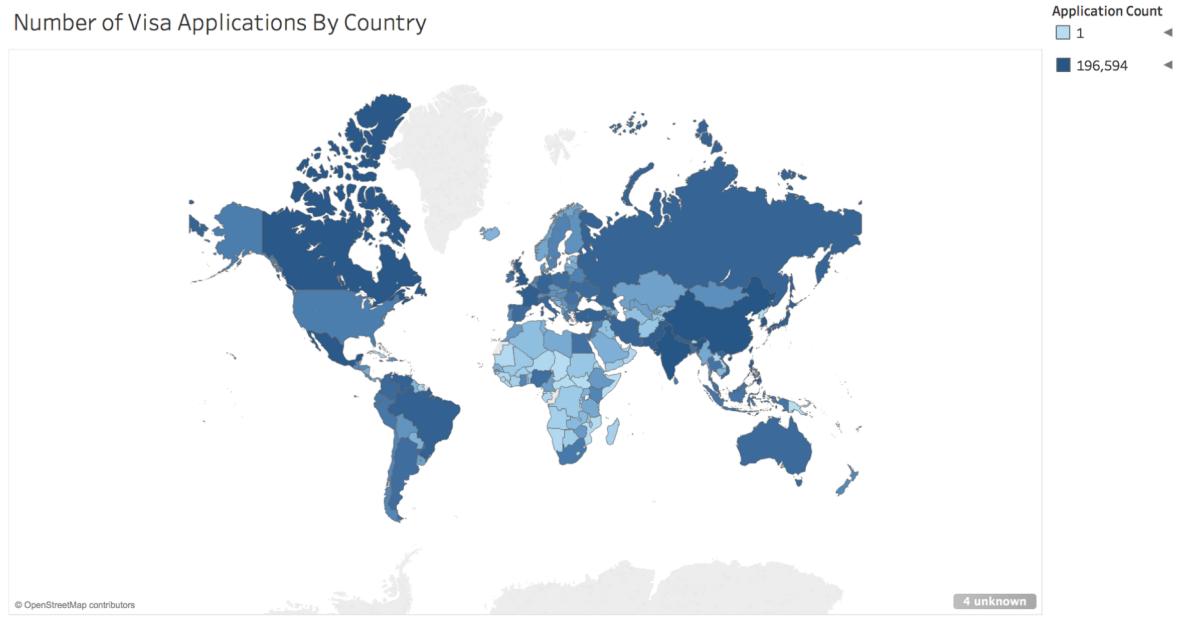
# All Those People, All That Red Tape

us visa

us visa **application forms**  
us visa **appointment**  
us visa **status**  
us visa **bulletin**  
us visa **number**  
us visa **application fee**



Number of Visa Applications By Country



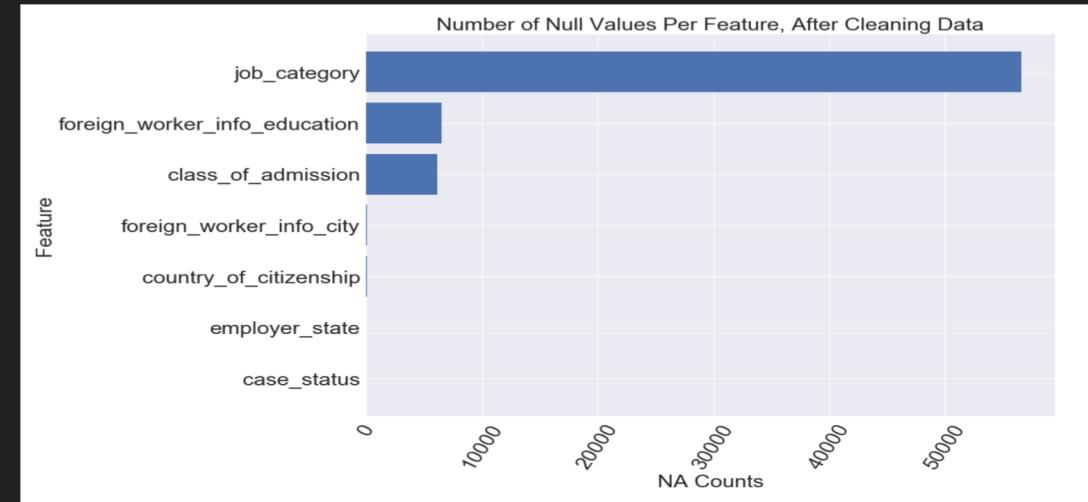
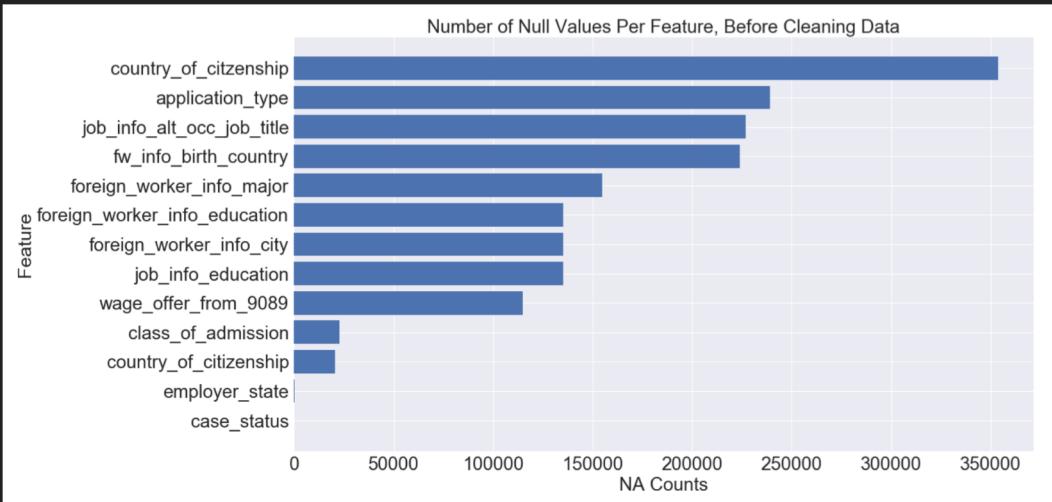
# 2 “Representative” Cases

Person 1



Person 2





# Data: Feature Selection

- 3 Datasets:
  - Kaggle Visa Dataset
  - Scraped:
    - City Population
    - State Abbreviations

# Modeling: Overview

## Comparison Metric

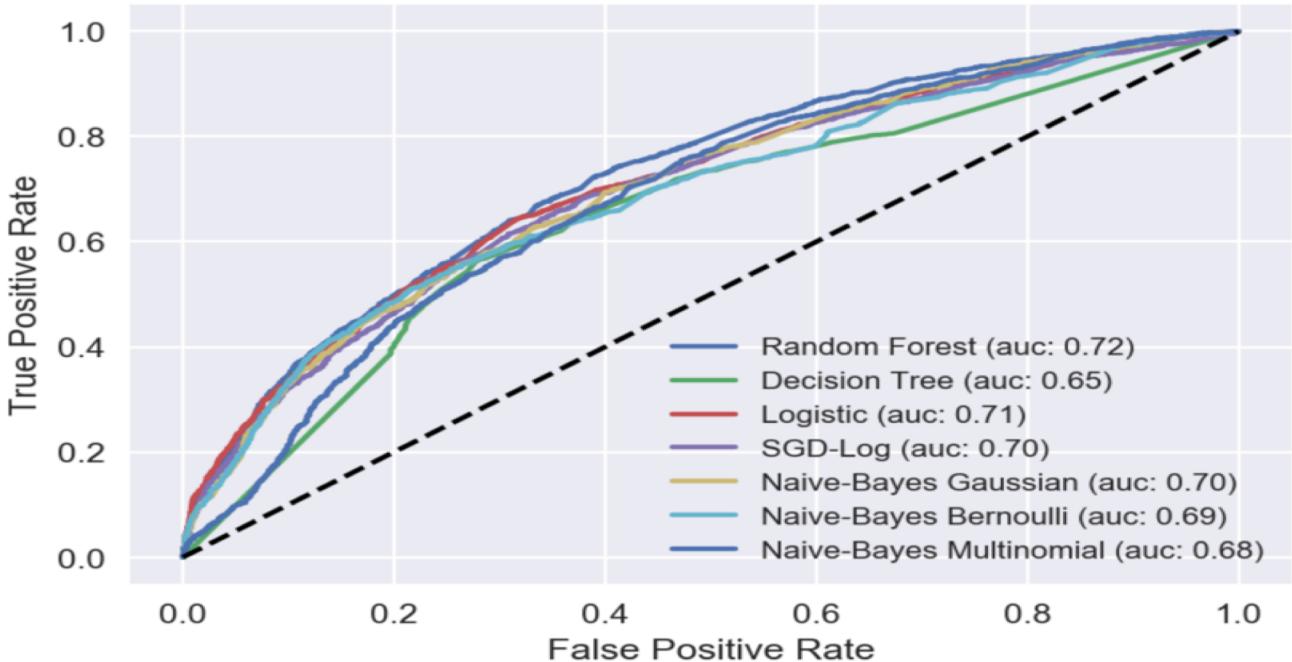
Area under the Curve

## Score

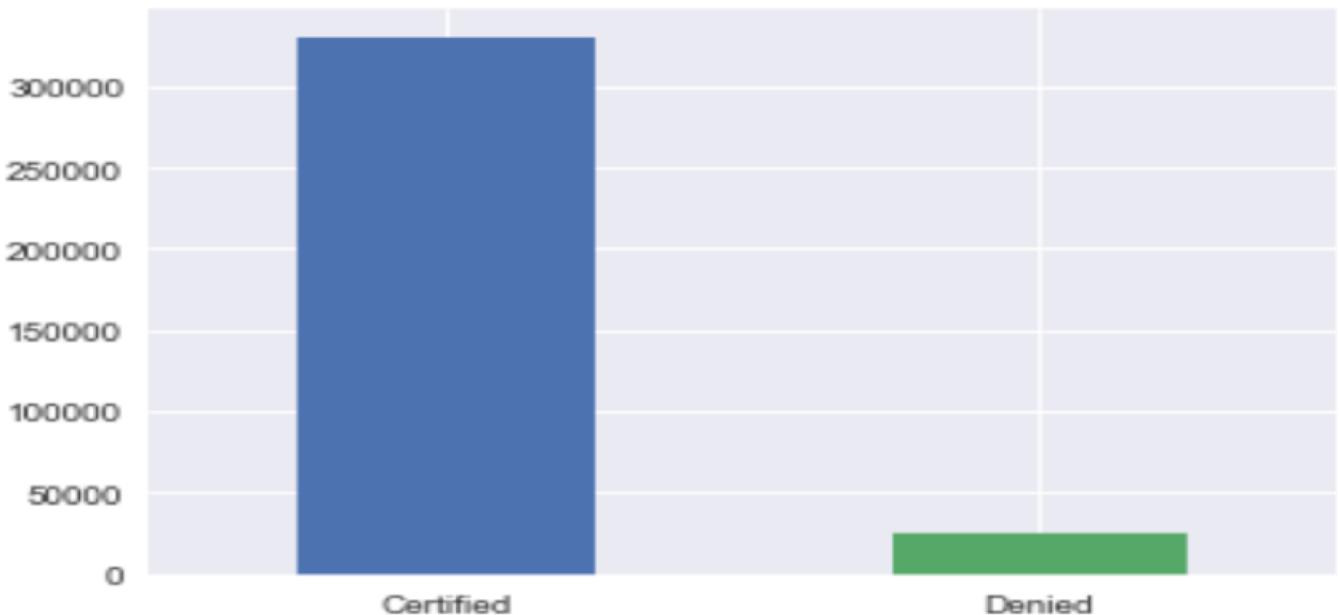
**Train:** 0.68

**Test:** 0.66

Comparing ROC Curves



Class Count



# Results: Damien



## Access Demystified

ICE is not always nice. We're here to help.

### Tell us a little about yourself

The what and why of your visa application, as the DHS sees it.

**What visa are you applying for?** **What is your primary citizenship?**

F-1 New Zealand

**Which city are you in?**  
Wellington  
Please Enter A Valid City Name, with Correct Spacing. (Note: New York= NYC)

**Which state are you going to?**  
California

**What is the highest degree you have obtained?**  
Doctorate

**What field are you going to work in?**  
Programming

Will I get my visa?

**We Predict That Your Visa Will Be**  
Certified Visa  
Because the chance it is not approved is **45%**

# Results: Ka



## Access Demystified

ICE is not always nice. We're here to help.

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### Tell us a little about yourself

The what and why of your visa application, as the DHS sees it.

**What visa are you applying for?** **What is your primary citizenship?**

H1B Portugal

**Which city are you in?**  
Macau  
Please Enter A Valid City Name, with Correct Spacing. (Note: New York= NYC)

**Which state are you going to?**  
California

**What is the highest degree you have obtained?**  
Master's

**What field are you going to work in?**  
Medicine

**Will I get my visa?**

**We Predict That Your Visa Will Be**

Denied Visa  
Because the chance it is not approved is **54%**

# There's Always More to Do!

1. Broaden User Base
  1. E.g. Use GoogleMaps API to Allow for More Locations
2. Broaden Features
  1. E.g. Use World Factbook to Import Country Features
3. Update to include 2017-2018 data
  1. Factor In Recent Policy Updates
4. UX Updates= Beautify Webapp
  1. E.g. Background Images

# Questions?