



Employee Attrition Prevention

Select an employee, and learn how best to prevent their attrition.

Denise Mooney, 71.8%



Attrition Risk

71.8%



Prediction

Leave



Machine Learning Powered Web Applications

Difficulty: **Intermediate**

YearsSinceLastPromotion <= 1

Matt Dancho

Business Science Workshop



Learning Lab Structure

- **Presentation**

(10 min)

- **Demo +
Break**

(45-10-45 min)

- **Recap**

(10 mins)



Hit me up on
LinkedIn



Matt Dancho

Founder of Business Science

Instructor at Business Science University





Businesses are Shifting To To Predictive Apps

#DataDemocratization

Data Science is Changing

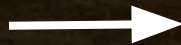
**Descriptive
Reports**

(Excel)



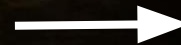
**Descriptive
Dashboards**

(Tableau)



**Predictive
Reports**

(Jupyter &
RMarkdown)



**Predictive
Applications**

(Dash & Shiny)



In the last 15 years, 52% of Fortune 500s Were Replaced

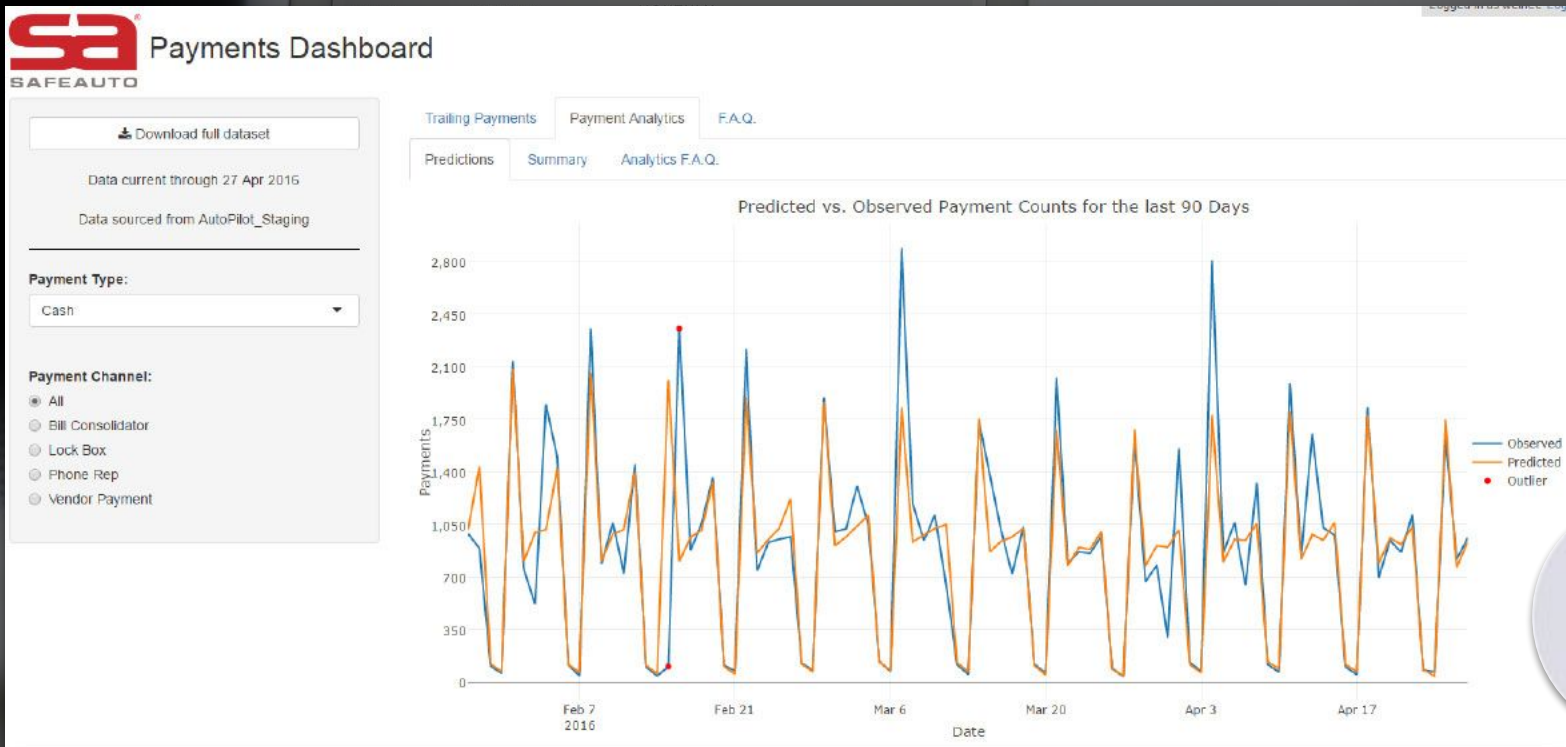
1955

Avg Time 75 years

2015

Avg Time 15 years

ML-App that identifies anomalous payments





RStudio gave us what we need to deliver data science applications that our business depends on.”

- John Kish, CIO at SafeAuto Insurance





waze

OUTSMARTING TRAFFIC, TOGETHER

ML-App that performs Traffic Analysis





waze

OUTSMARTING TRAFFIC, TOGETHER

“Shiny dashboard and visualization development allowed the fastest time to market.”

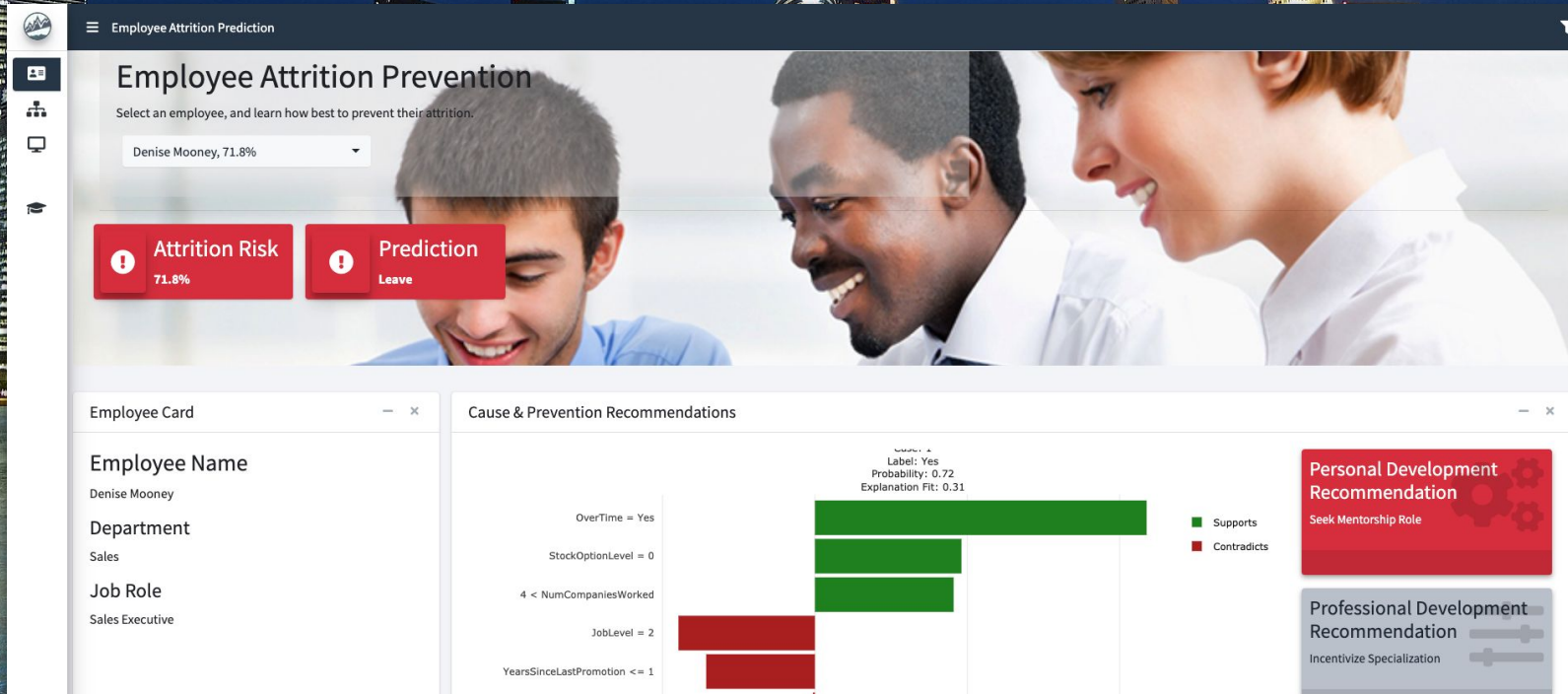
- Daniel Marcous, Google, Waze Data Wizard



What is the common thread?



ML-Powered Applications



Sales Demand Forecast by Business Science

An application we're building at DSGO 2019

Pick a model type

XGBoost

Product Group

Mountain, Road

Product Sub-Group

9 items selected

Customer

30 items selected

Time Unit

Day Week Month Quarter Year

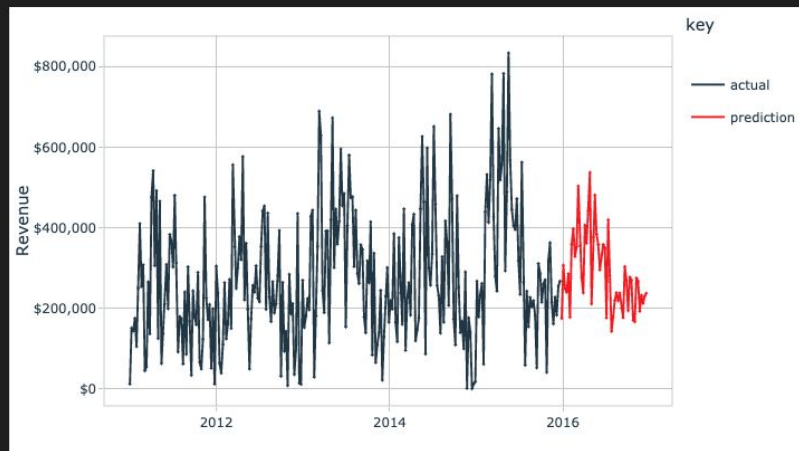
Forecast Periods

52

Add Smoother

▶ Calculate Forecast

Revenue Forecast



Introduction to Shiny



Time to Learn