

A close-up photograph of a hand typing on a laptop keyboard. The image is heavily blurred and has a dark, semi-transparent overlay, making the text the primary focus.

# Insight Engine

...

Galvanize Risk Solutions

# **Insight Engine uses machine learning to safeguard your business**

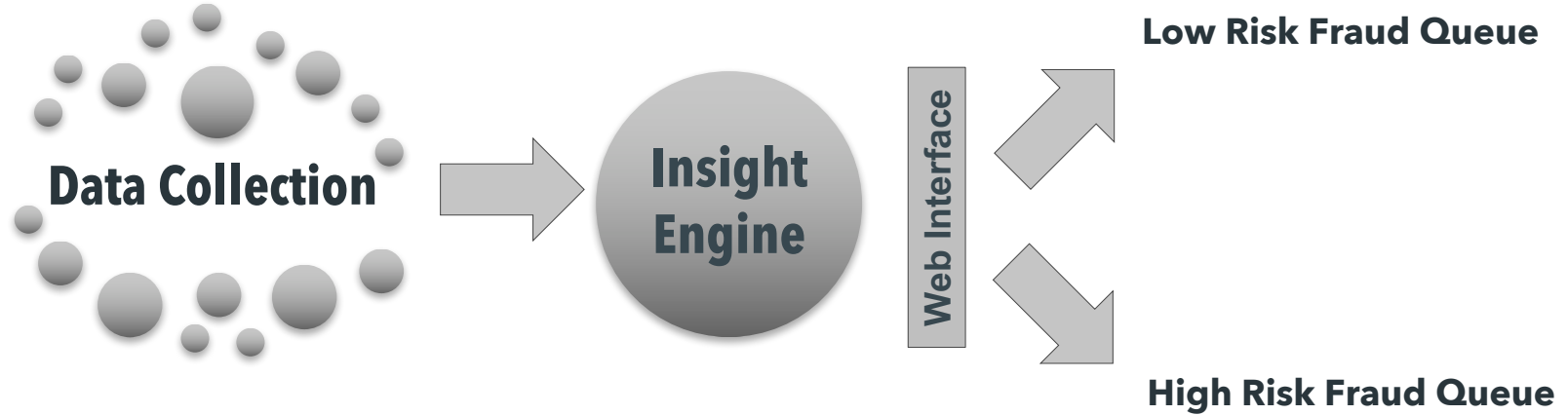
- ❑ **Real time analysis to safeguard your business at every transaction.**
- ❑ **Insight Engine learns new fraud patterns to adapt to new fraud methods.**

# Seamless integration into existing fraud infrastructure

- ❑ **Per transaction risk assessment can be used to complement existing fraud pipeline.**
- ❑ **Risk metrics can be used to funnel flagged events to different fraud teams based on risk level.**

# Insight Engine Architecture

Customizable Solutions



# **Insight Engine: Web App**



Welcome,  
Darren

GENERAL

Home

Total Users

14479

1% From last Week

Today's Sales

\$1234

3% From yesterday

Total Fraud

1882

2% From last Week

Total Spam

4,567

5% From last Week

Total Locked

345

1% From last Week

Model Score

93.5%

34% From last Week

## Current Sales Activity

### Model Prediction

Not Fraud!

### Predicted Probability

1.33%

### Current Event

```
{
  "approx_payout_date": 1343935800,
  "body_length": 3046,
  "channels": 6,
  "country": "US",
```



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Model Score

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34% From last Week

## Current Sales Activity

### Model Prediction

**Fraud!**

### Predicted Probability

**71.33%**

### Current Event

```
{
  "approx_payout_date": 1381122000,
  "body_length": 2976,
  "channels": 11,
  "country": "US",
```

# Profit Optimization



# Highly customizable to different cost scenarios

## High Detection Customization

Can be used for those with lower cost manual reviews or multi-tiered fraud queues.

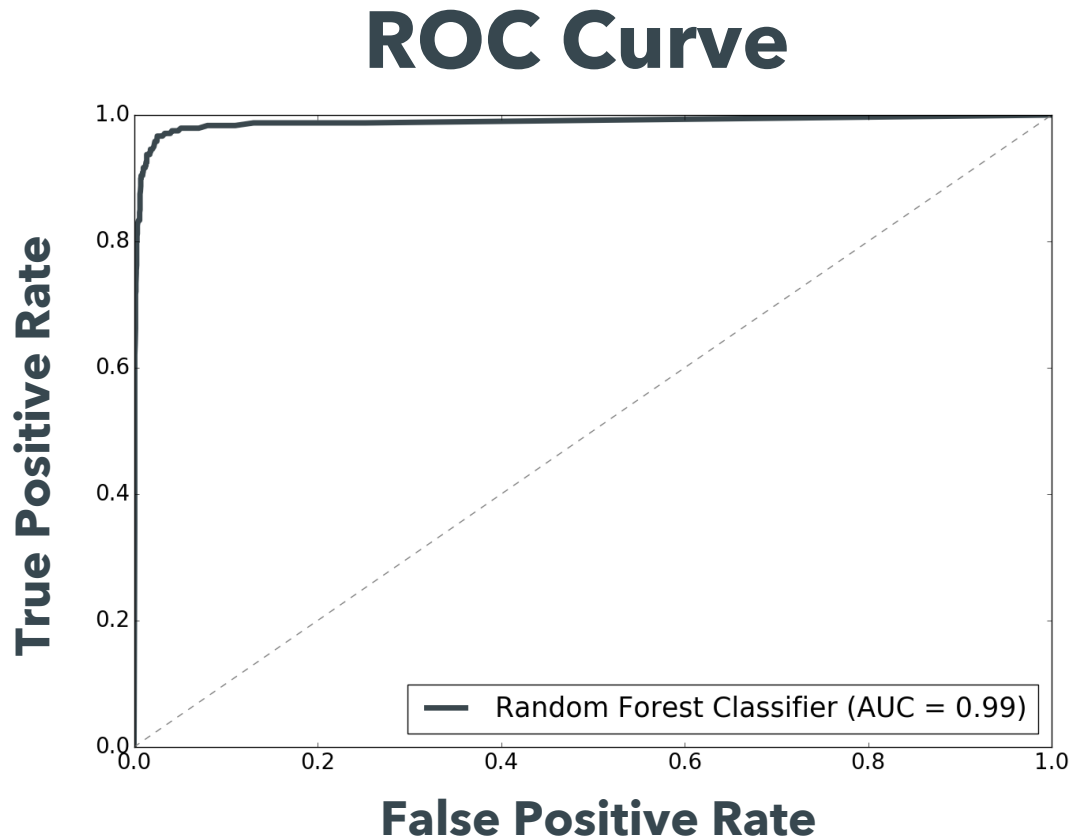
- ❑ Recall: 95.4%
- ❑ Precision: 72.3%
- ❑ F1: 82.3%

## High Precision Customization

Can be used for those with high cost of manual fraud reviews.

- ❑ Recall: 88.1%
- ❑ Precision: 92.9%
- ❑ F1: 90.5%

**ROC analysis  
can help  
guide fraud  
detection  
sensitivity.**



**Profit curve  
guides  
decisioning  
on how much  
fraud should  
be detected.**

## Profit Curve

