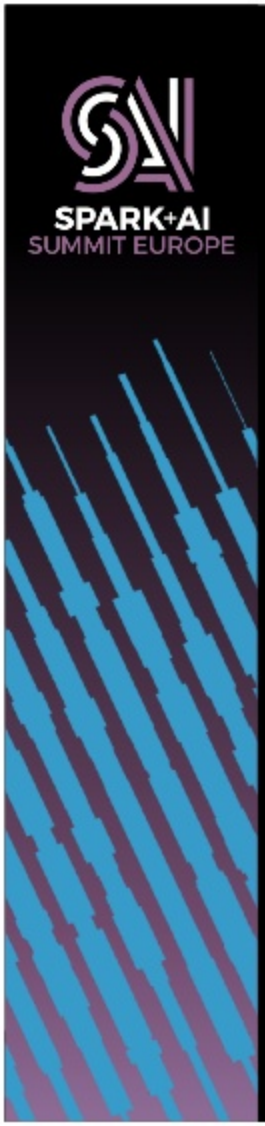



# How Engaged Are your Posts?

Social Image Analytics

Jack McCush – Teradata

#SAISAI9

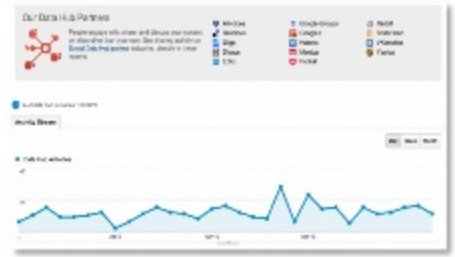
# Overview

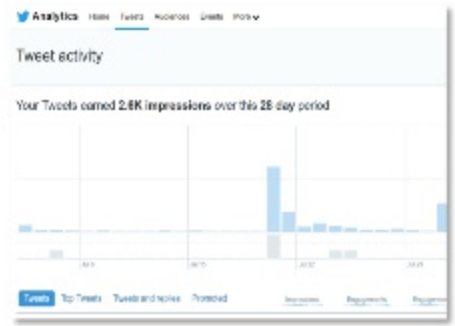
**Problem Statement:**

- Marketing has reactive tools to optimize revenue available through social media
- Enable predictive consumer engagement across image and account factors

**Theoretic Customer Scenario:**

- Priceline ($12.7 B revenue) looking to catch Expedia
- 30% of $4.3 B current digital spend on social media
- ROI Discussion: 2-4% sales growth, or ~$380 M above current growth trends with image optimization






# Introducing Project Cyclops

Model Training

Apply ResNet50

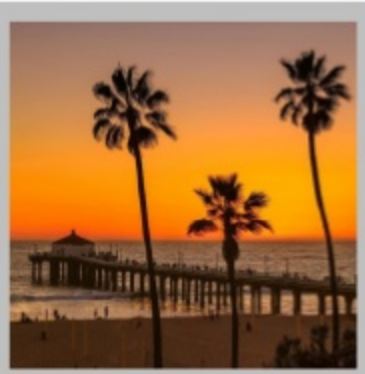
- Top 5 Classes for each image
- Class is attribute, probability of class is attribute value
- With 50K+ images, 997 classes represented

Train XGBoost

XGBoost_score.py

XGB.pickle

Model Scoring



Apply ResNet50

Predicted: [
('seashore', 0.8395325),
('lakeside', 0.14620699),
('breakwater', 0.0025936835),
('pier', 0.0018090468),
('picket_fence', 0.0015644263)]

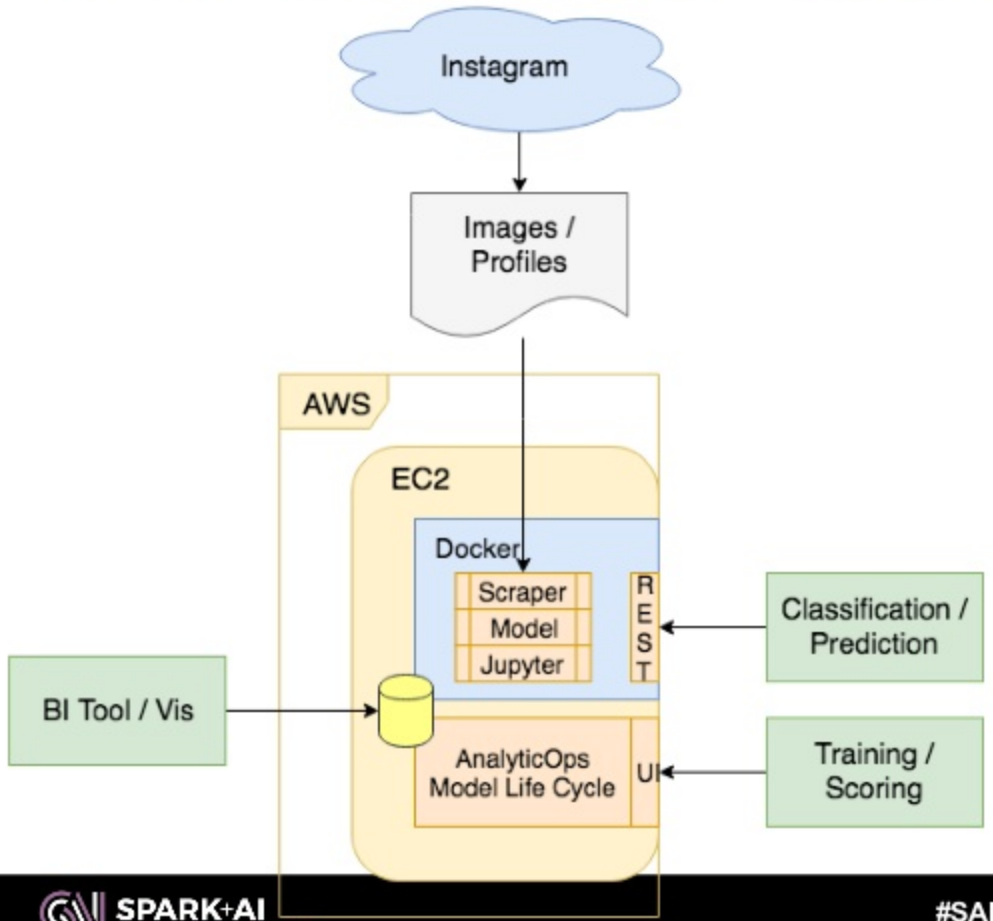
Score XGBoost

XGBoost_score.py

XGB.pickle

= 2,300 Predicted Likes

# Architecture Deployment Methodology




Provide the end user with a REST API where they can receive a prediction of a given image impact:

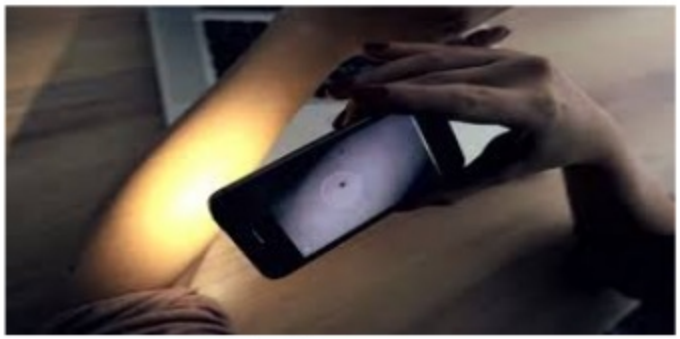
1. Download images from accounts into an AWS S3 storage.
2. Deploy and train the model using AnalyticOps.
3. Dockerize the trained model.
4. The REST API invokes the prediction and returns the insight.

# Demo!

# Continued Development: Project Cyclops

**Oil & Gas:**
**Structural Inspection**


**Retail:**
**B to B to C**



**Healthcare:**
**Dermatologic Severity**

**Security:**
**Smart Camera; Smart City**