How Engaged Are your Posts?

Social Image Analytics

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#SAISAI9

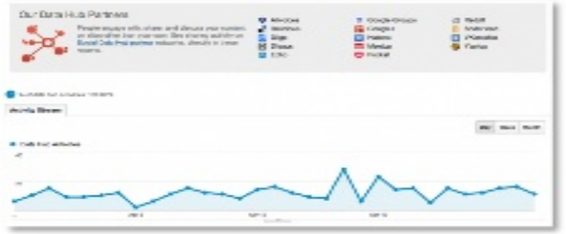
Overview

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)]

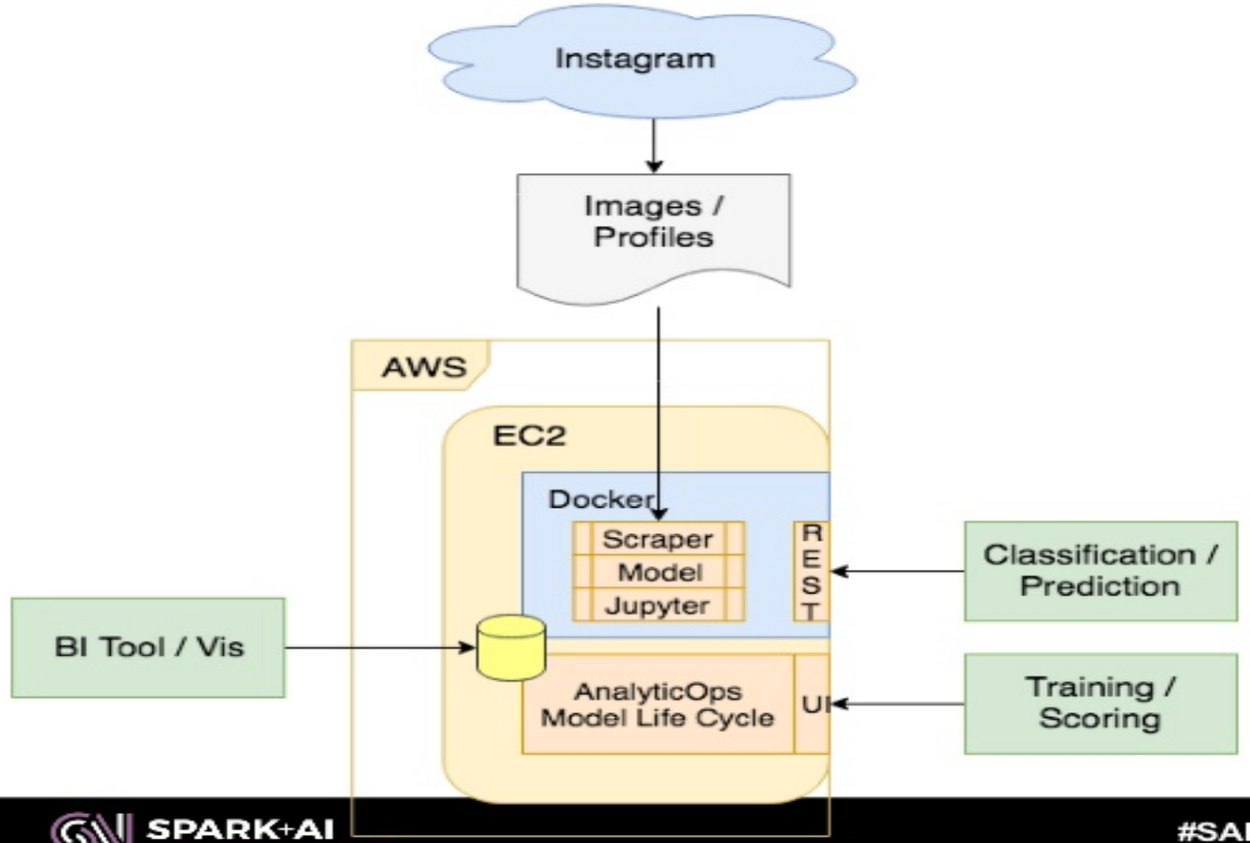
Score XGBoost

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:

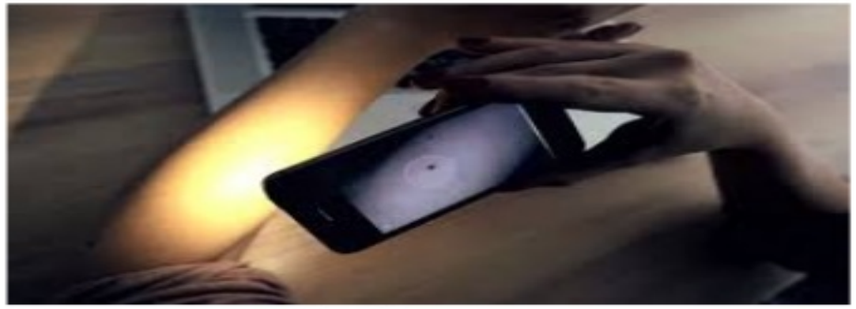
1. Download images from accounts into an AWS S3 storage.
2. Deploy and train the model using AnalyticOps.
3. Dockerize the trained model.
4. The REST API invokes the prediction and returns the insight.

Demo!

Continued Development: Project Cyclops

Oil & Gas:
Structural Inspection

Retail:
B to B to C



Healthcare:
Dermatologic Severity

Security:
Smart Camera; Smart City