MACHINES AND THE MAGIC OF FAST LEARNING

Eric Frenkiel, CEO
FEEDBACK LOOP
PRECISION
DIGITAL DEFENDERS OF CHILDREN
63% of underage sex trafficking victims are advertised online.

Increase in child sexual abuse imagery since 2007.

42% of victims met perpetrators online.
DIGITAL DEFENSE IS A BIG AND FAST DATA CHALLENGE
THORN SIFTS THROUGH MASSIVE AMOUNTS OF DATA

100k escort ads posted every day in this country
FACE
RECOGNITION
4,996 POINTS

- CLASSIFICATION
- DE-DUPLICATION
- MATCHING
THE MISSING DATABASE SYNTAX

select id, description,
vector_dot(images.val,
UNHEX("XXXXXXXX")) as distance
from images
having distance > CONSTANT;

• SIMD Euclidean Measurement Between Points

• 1,000x match improvement time
2000+ children saved in 2016

REAL-TIME HAS REAL WORLD IMPACT
Putting Fast Learning Practices To Work
MACHINE LEARNING FOR IMAGE RECOGNITION

- New Image Stream
- Model Evaluation and Regression
- Reference Image Store
- TensorFlow
- Application
BUILDING FAST LEARNING FOR IMAGE RECOGNITION

LATER TODAY

REAL-TIME ANALYTICS AT UBER-SCALE
11:00am
LL20 B

BUILDING REAL-TIME DASHBOARDS
1:50pm
210 D/H
THANK YOU