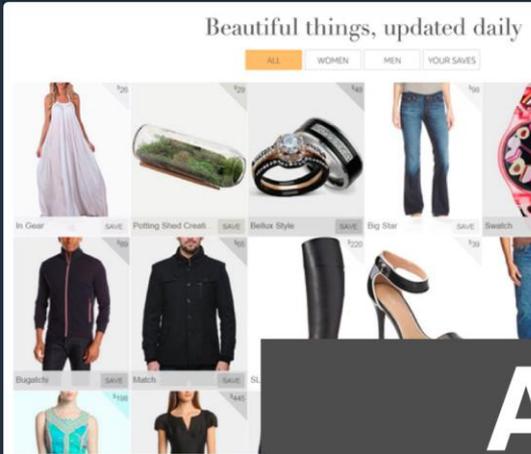


Artificial in e-Commerce



Surawut Phornthabthong
Senior Solutions Architect AWS (Thailand)



Amazon AI



Investments in ML for more than **20 years**.
Thousands of engineers focused on ML.



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SPOTLIGHT! -- AUGUST 16TH

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EYES & EDITORS, A PERSONAL NOTIFICATION SERVICE

Like to know when that book you want comes out in paperback or when your favorite author releases a new title? Eyes, our tireless, automated search agent, will send you mail. Meanwhile, our human editors are busy previewing galleys and reading advance reviews. They can let you know when especially wonderful works are published in particular genres or subject areas. Come in, [meet Eyes](#), and have it all explained.

YOUR ACCOUNT

Check the status of your orders or change the email address and password you have on file with us. Please note that you **do not** need an account to use the store. The first time you place an order, you will be given the opportunity to create an account.

Artificial Intelligence At Amazon (1995)



amazon
fulfillment

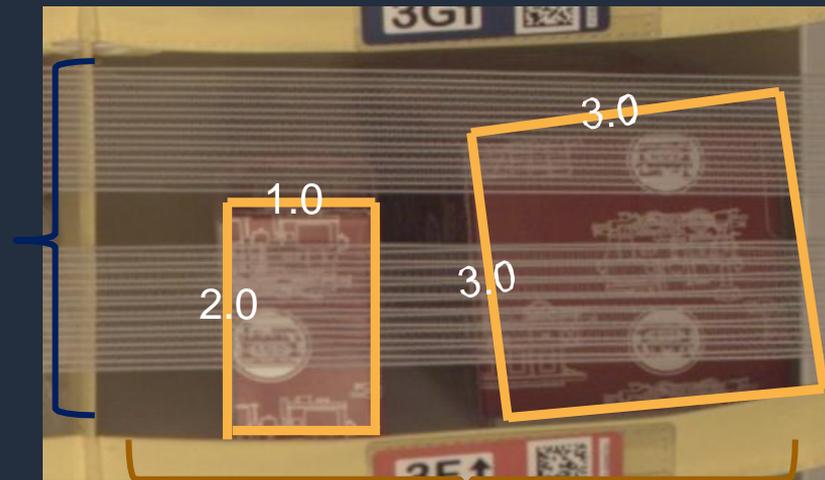
The image shows the interior of an Amazon fulfillment center. In the foreground, a white shelving cart with a red top section is visible, featuring the Amazon logo and the word "fulfillment". The cart is filled with numerous brown cardboard boxes. To the right of the cart, a line of orange Kiva robots is moving along a track on the floor. The background consists of yellow shelving units filled with various items, and the ceiling is supported by a complex network of dark metal beams. The floor is a light-colored, polished concrete.

Amazon Fulfilment – Deep learning

Check missing stocks in shelf



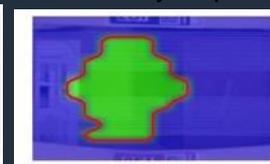
Check the number of stocks



Original image

Activation map

Binary map





fire TV



amazon

amazon

the all new
echo dot



WALK OUT
WITH NO CHECKOUT

**JUST
WALK
OUT**

SHOPPING

amazon go

ML at Amazon



More ML is built on AWS than **anywhere else.**

Use Cases: E-Commerce

Common Use Cases

- Personalization
- Customer Sentiment Analysis
- Conversational Advertising
- Social Media Impact Optimization
- Lead Generation
- Lead Scoring
- Scenario Prediction
- Optimize Marketing Spend
- Predicting Engagement
- Contextual Marketing
- Prioritizing Local Appeal
- Demand Forecasting
- Partner Scoring
- Supply Chain Optimization
- Trigger Event Detection

“The future is here,
it’s just **not evenly distributed** yet”

William Gibson

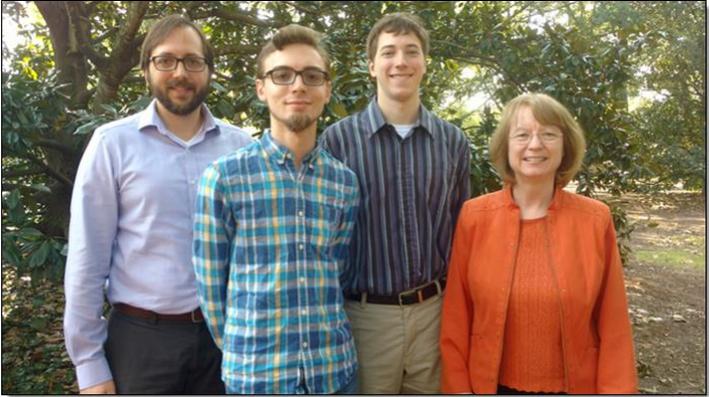
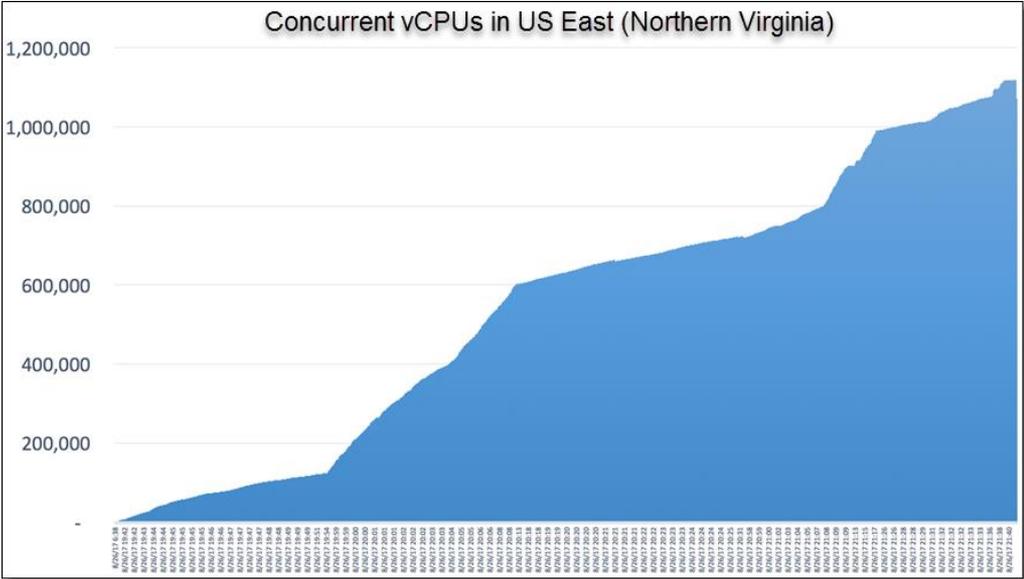
start with the
customer
and work backwards

—Jeff Bezos

If you knew
the **state of every touchpoint**
in your customer journey in **real time**,
and had **infinite compute & storage** available,
what problems would you solve?



Natural Language Processing at Clemson University



“I am absolutely thrilled with the outcome of this experiment. The graduate students on the project are amazing. They used resources from AWS and Omnibond and developed a new software infrastructure to perform research at a scale and time-to-completion not possible with only campus resources. Per-second billing was a key enabler of these experiments.”



Content Analysis Solution

Automatically provision the services necessary for building common use cases on AWS

Machine Learning Services

Vision

Rekognition Image & Video

Language

Comprehend, Transcribe,
Translate, Chat Bot

Other Services

e.g. Recommendation Engine

Automated Metadata Generation

Label & Face Detection

Celebrity Detection

Face Search

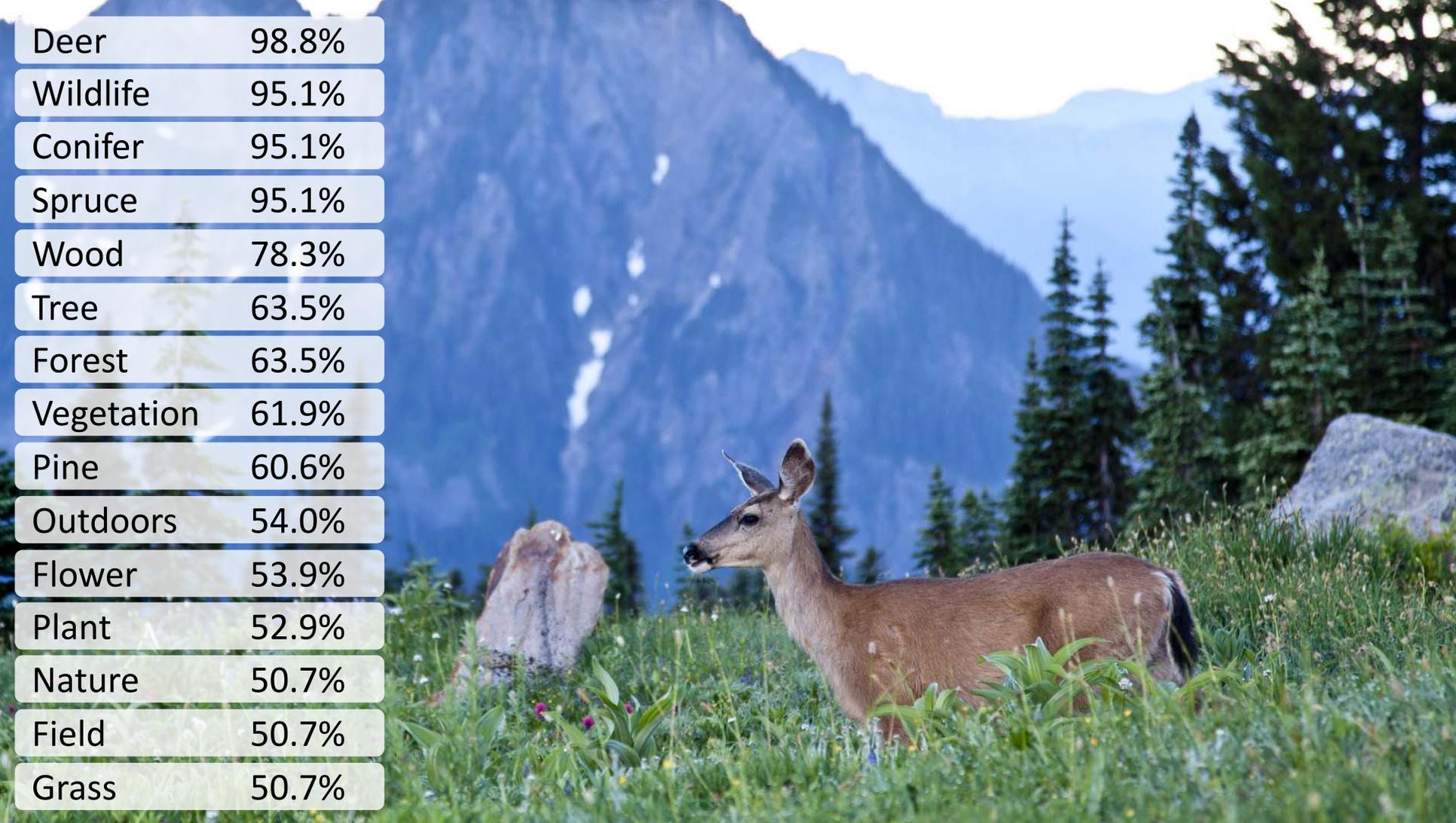
Activity Pathing

Conversation

Context

Key Entity & Phrase Detection

Future starter kits



Deer	98.8%
Wildlife	95.1%
Conifer	95.1%
Spruce	95.1%
Wood	78.3%
Tree	63.5%
Forest	63.5%
Vegetation	61.9%
Pine	60.6%
Outdoors	54.0%
Flower	53.9%
Plant	52.9%
Nature	50.7%
Field	50.7%
Grass	50.7%

Rekognition: Facial Detection

Demographic Data

Male
97.4%

Facial Landmarks

Happy
96.0%

Smiling
96.3%

Image Quality

Brightness: 25.84
Sharpness: 160

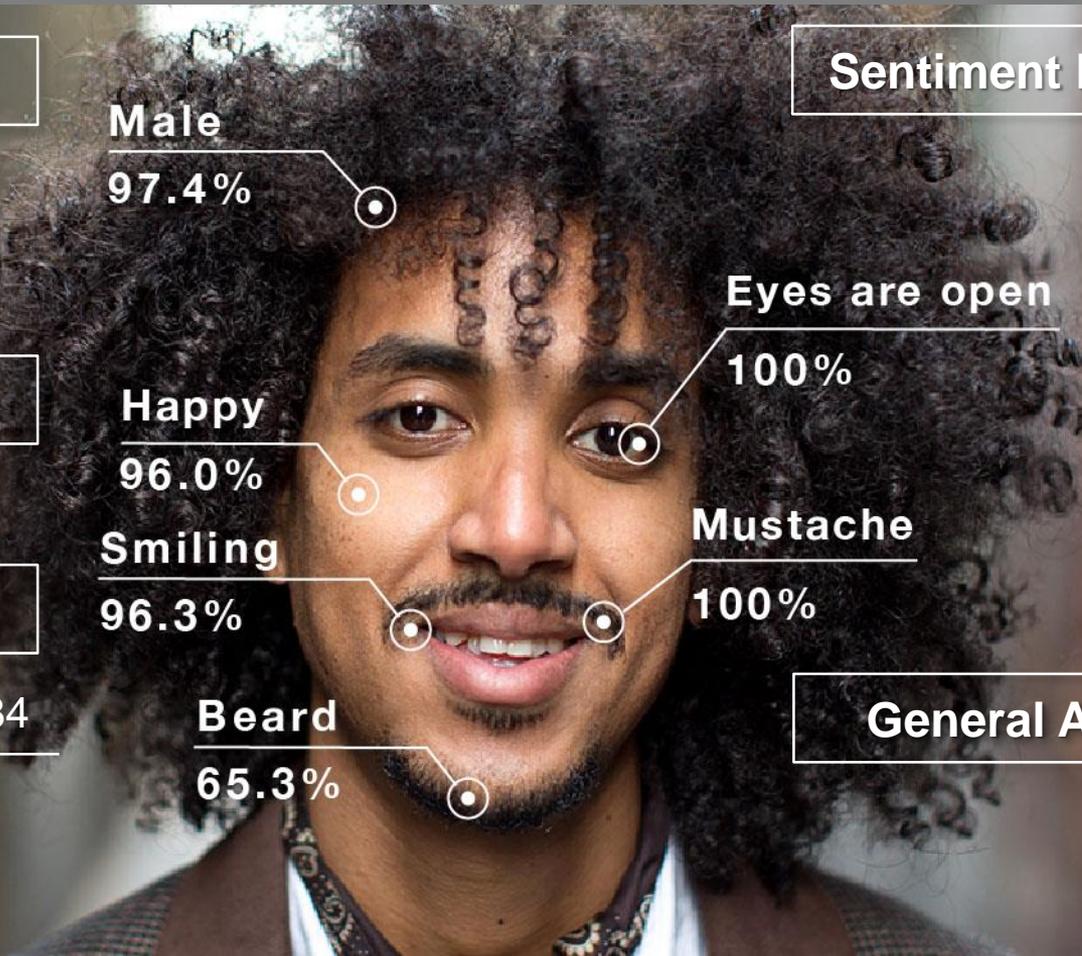
Beard
65.3%

Sentiment Expressed

Eyes are open
100%

Mustache
100%

General Attributes



Rekognition: Face Verification



Similarity: 98%

Democratizing Selling Art with Deep Learning

Artfinder uses deep learning to match artists and potential buyers through its website as well as through Emma, its AI art curator.

- Recommends art by using deep learning models and Amazon Rekognition on AWS to analyze over 500,000 art pieces and to perform complex correlations between images.
- Uses AWS Lambda and Elastic Search to improve performance in processing art color palettes and refining customer search.

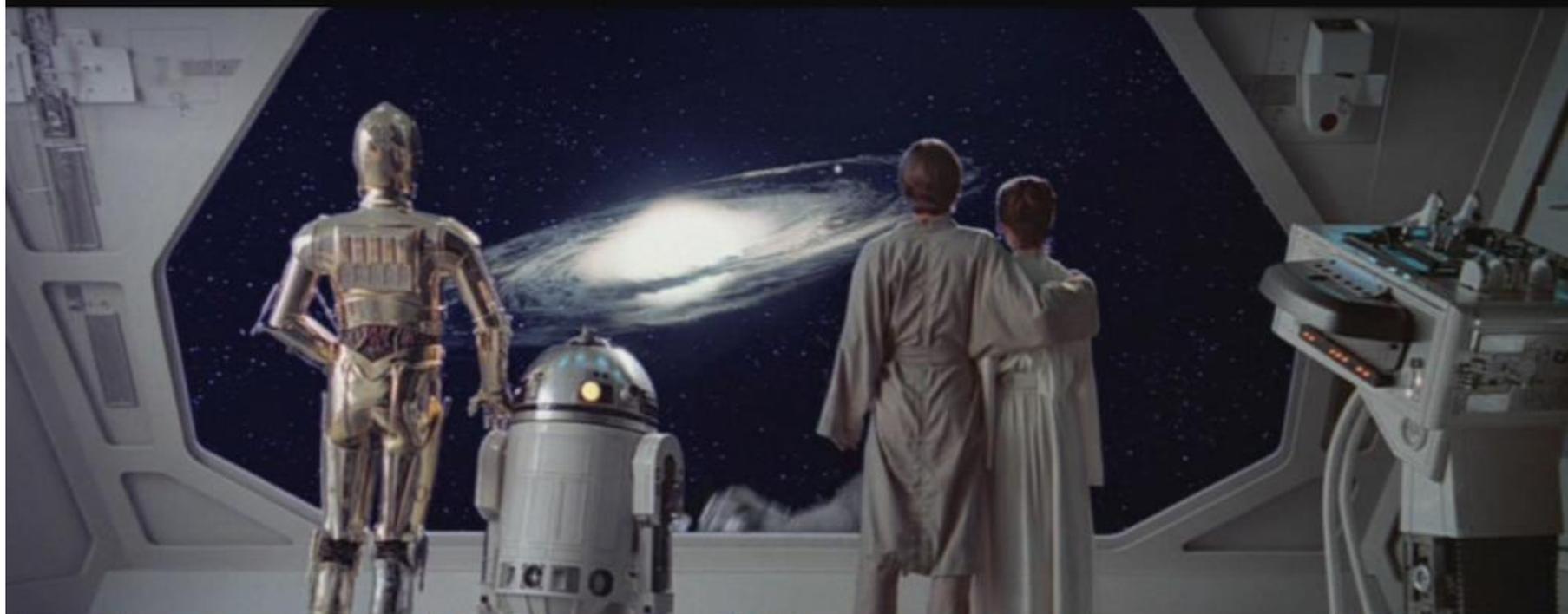
Artfinder



Automated Metadata Generation Demo



Star Wars: Episode V - The Empire Strikes Back



The Rebel Fleet/End...
John Williams



Mark Hamill
Luke Skywalker



Carrie Fischer
Princess Leia



Anthony Daniels
C3PO



Kenny Baker
R2D2

AMAZON SUMERIA





FSI L&L DEMO

Start



ML @ AWS

OUR MISSION

Put machine learning in the hands of every users, developers and data scientists.

