

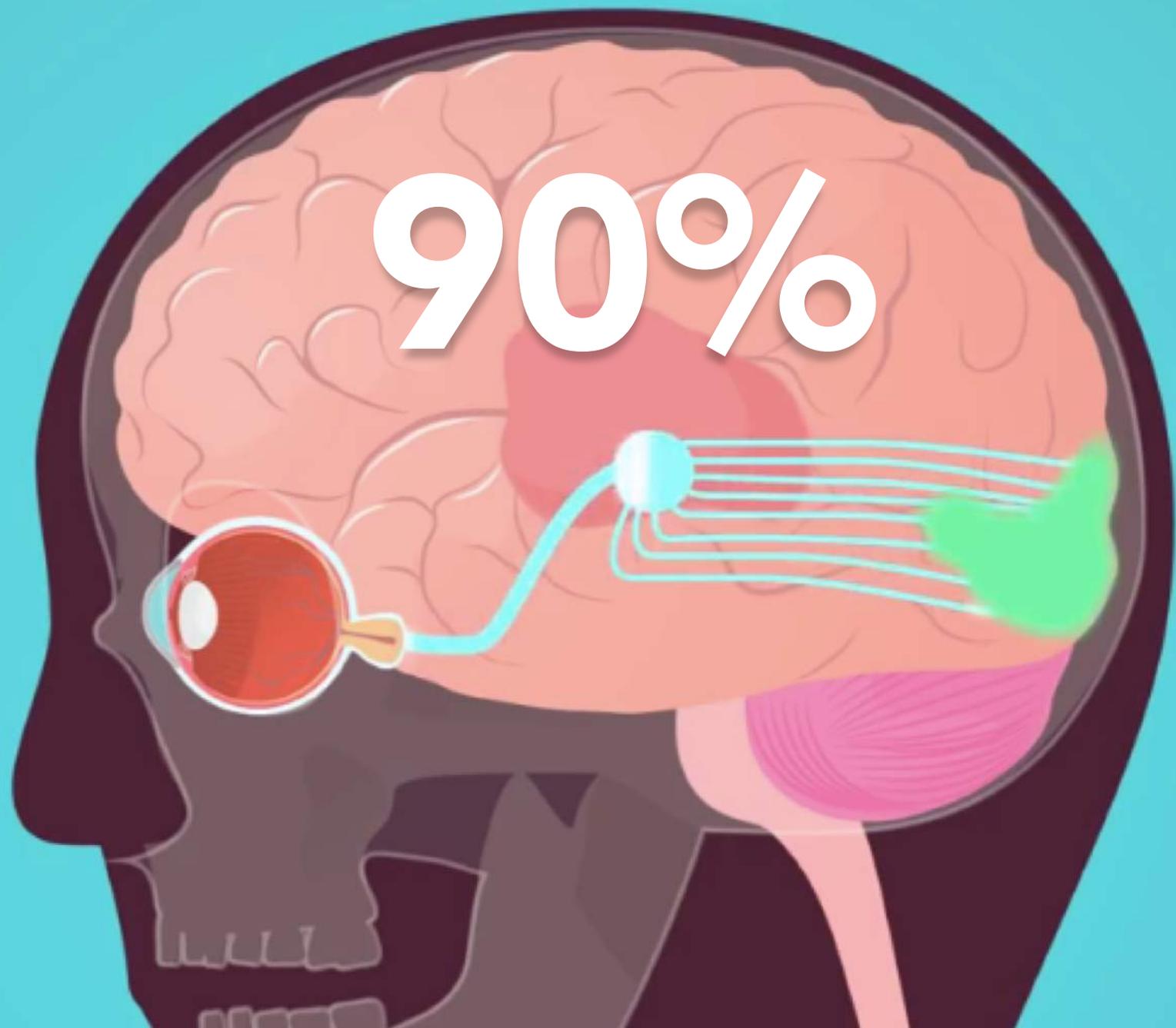
See and Shop

markable.ai

A deep learning AI computer vision company that creates end-to-end visual search solutions for smarter fashion e-commerce.



90%



why now?

Fashion Retailers & Brands

Images

facebook

Instagram

Pinterest

Videos

NETFLIX



vimeo



wiki vevo

hulu

DRAMAFEVER

In the US, Retailers and Brands are **threatened** by Amazon.

Amazon's threat in Fashion has also stabilized, as Amazon do not have the right branding for quality fashion brands, so it is creating its own branded products and competing with its merchants instead. Quality brands/retailers are avoiding Amazon. There are 800 brands working on their own ecommerce platform with limited resources and need more traffic.

markable.ai

Video Content is King. The Kings are at war. Video is 80% of the online traffic. Meanwhile, the video publishing competition has become fierce. Most users only subscribe to one. All content publishers are struggling with revenue sources while competing for a better and smarter user experience.

Fashion shopping's emotional trigger has always been ignited from visual content of what influencers are wearing as the human nature. Shoppers has no way to **shop them all in the US** unlike in China.

amazon

vs.

ebay

High End

YOOX
FARFETCH
REVOLVE
Saks Fifth Avenue

BARNEYS
NEW YORK
bloomingdales

shopbop
NORDSTROM
★ macy's
sears
FOREVER 21

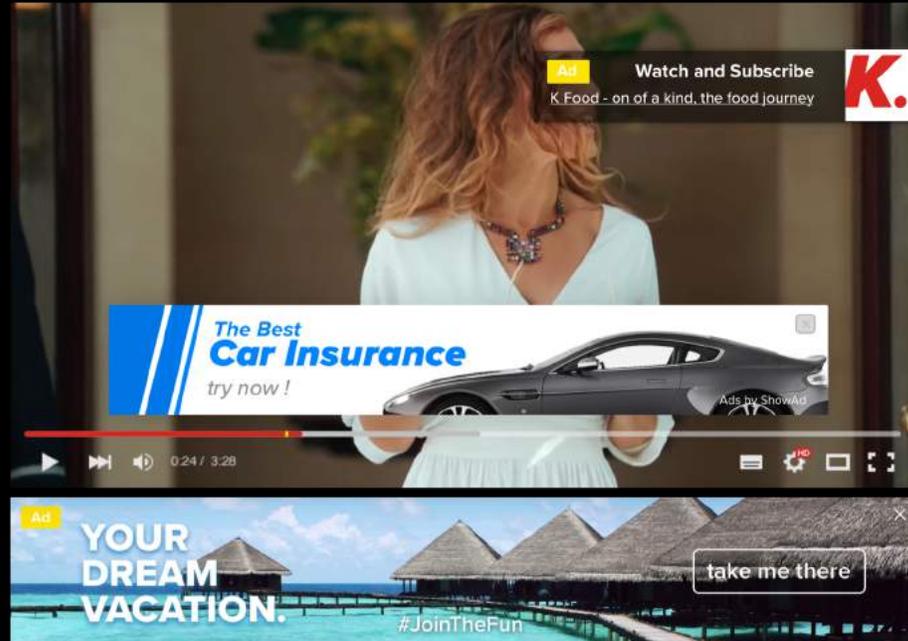
H&M
TARGET
Etsy
wish
Low Price



Stage 2: the **advertising** problem

PROBLEM

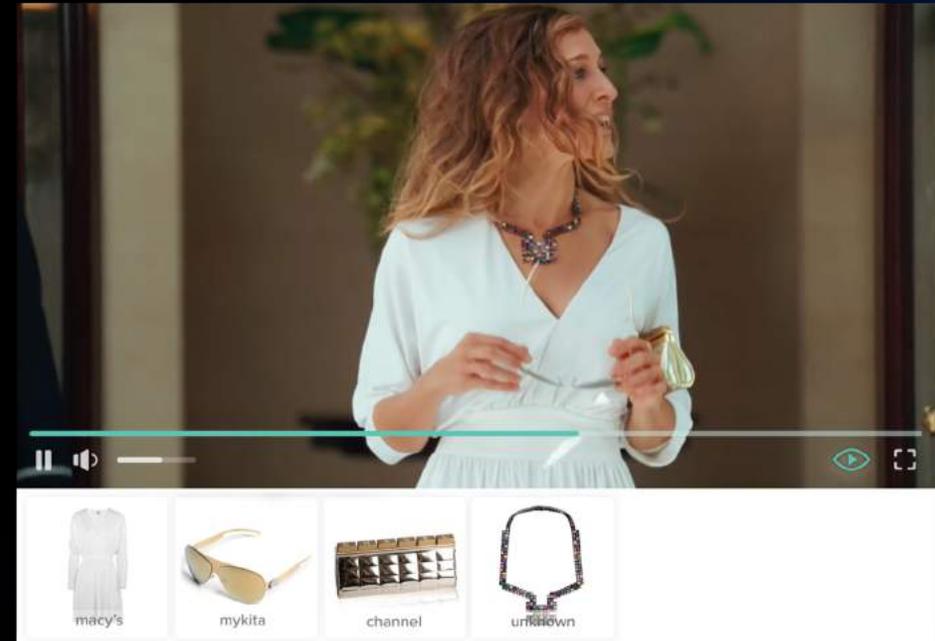
viewers treated like a digital trash can



76% of people **skip** or **block** ads
1.84% click through rate

SOLUTION

content-related product discovery



user initiated = **0** content disturbance
17% click through rate



the advertising experience 1.0

The image displays a video player interface for an advertisement. The main video shows a woman with long, wavy brown hair wearing a white, long-sleeved, V-neck dress. A red rectangular box highlights a necklace she is wearing. Below the video, there is a horizontal carousel of four product thumbnails, each with a brand name underneath:

- macy's**: A white, long-sleeved dress.
- mykita**: A pair of yellow-tinted sunglasses.
- chanel**: A black quilted Chanel-style handbag.
- steve sasco**: A necklace with a red star icon in the top right corner, indicating it is the selected or featured item.

At the bottom of the video player, there are standard controls: a play/pause button, a volume icon, a progress bar, a red eye icon (likely for ad privacy), and a full-screen icon.

the advertising experience 2.0

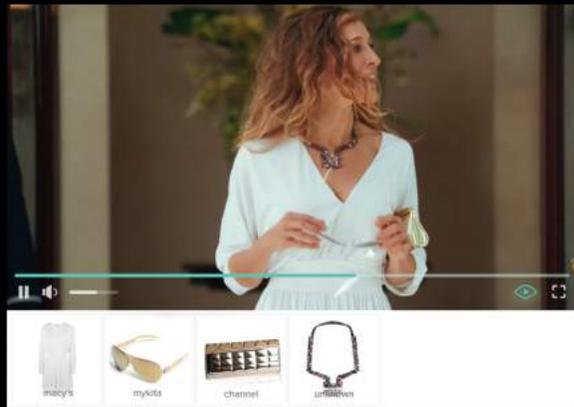


Solving the **retailers** problems

PROBLEM 1 - Expensive Traffic

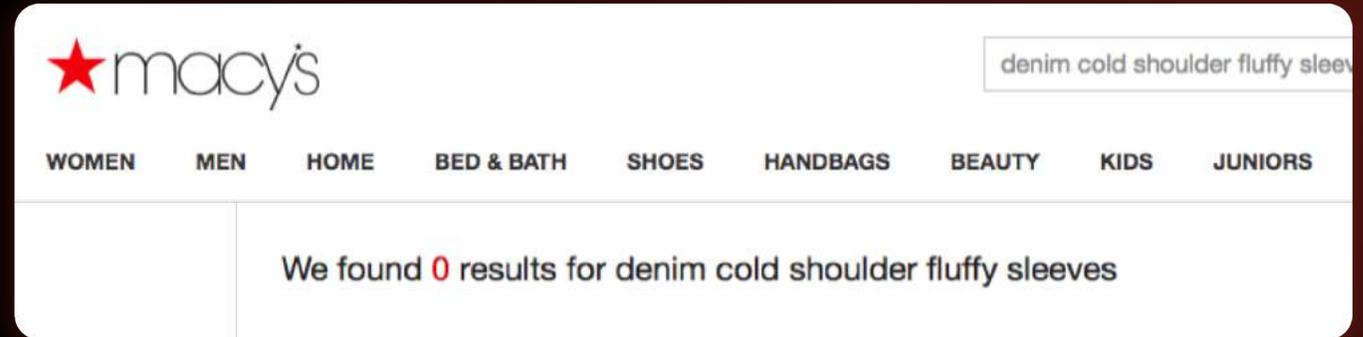


SOLUTION 1 - Traffic relevant to content



PROBLEM 2 - Poor Experience

- Disorganized Products
- Lack of Engagement

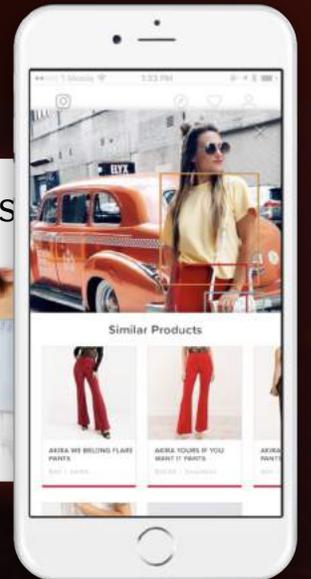


SOLUTION 2 - Faster Discovery



searched image

We found **32** visually similar results



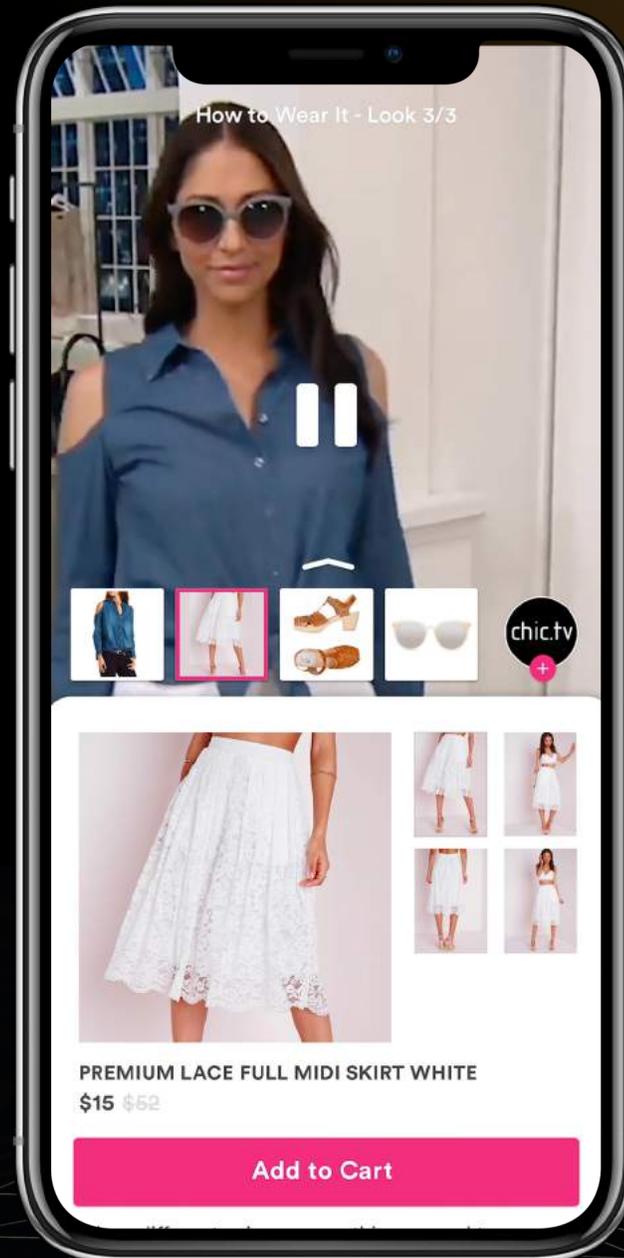
Solving the **consumer** problems

No place
to discover & shop
good looking content only

Our solution:

shop
what you
see

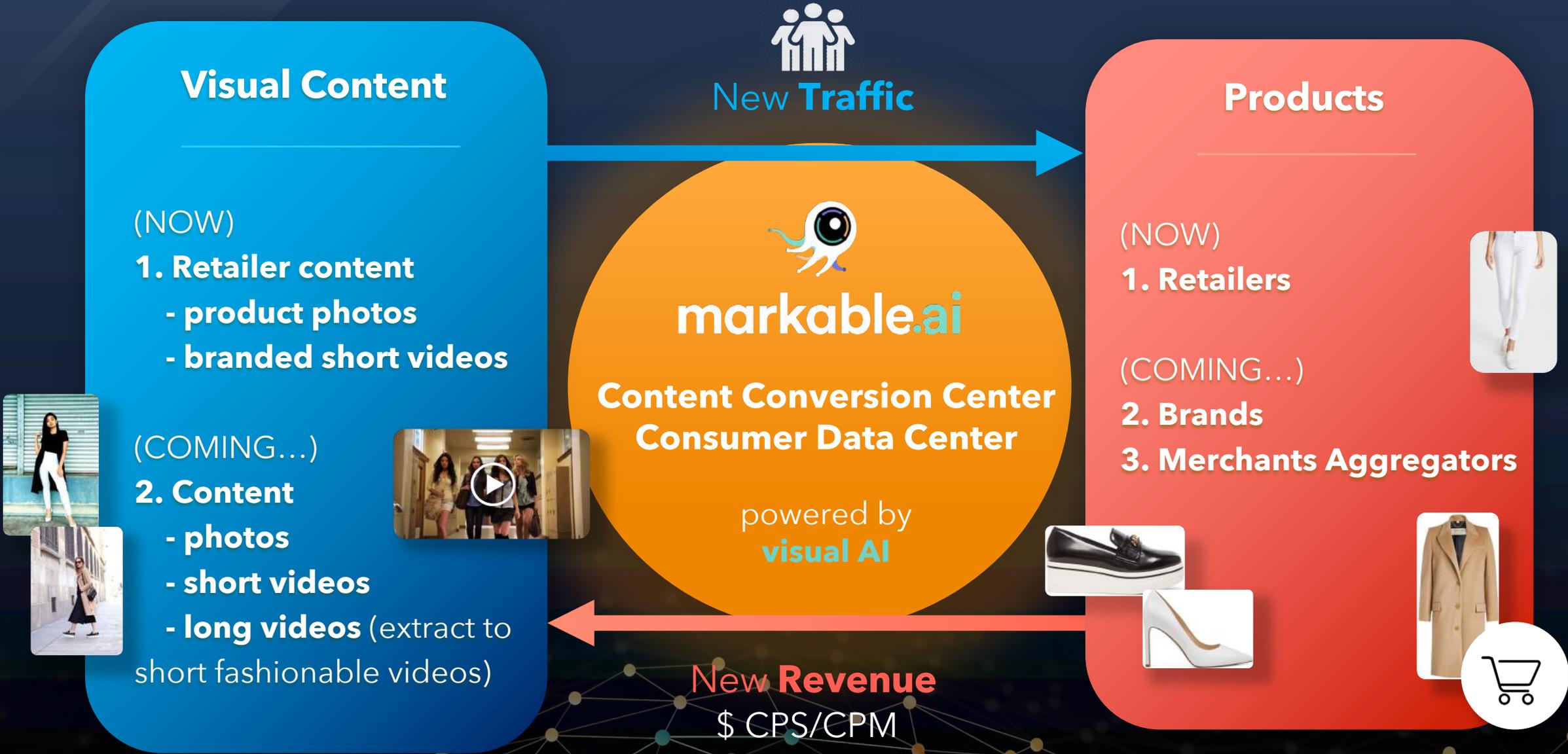
COMING SEPTEMBER



keep
watching
what's visually
related



Business Model



全球市场规模

¥ 8.4万亿

全球
服装与配饰市场

数据来源

¥ 3.5万亿

2017全球
数字广告花销

数据来源

¥ 6千亿

全球
付费搜索广告

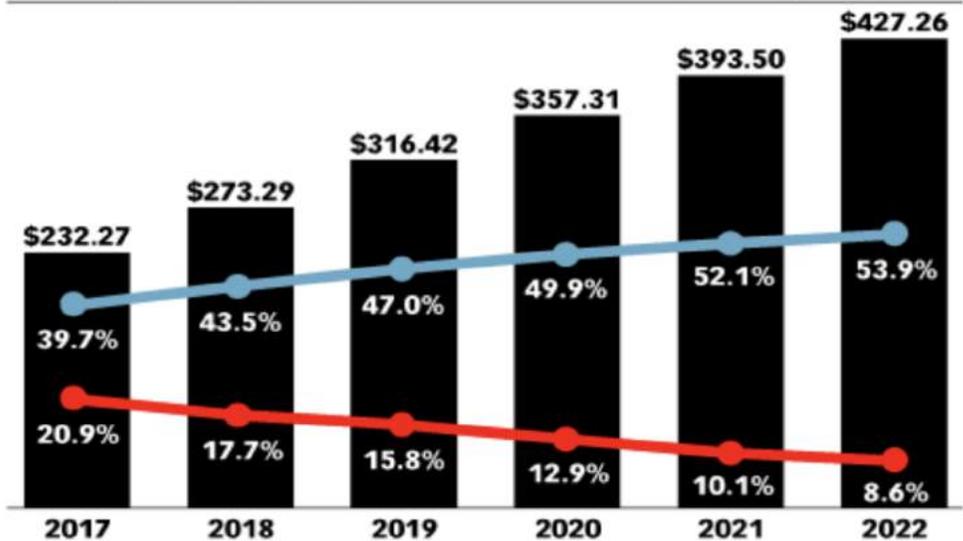
数据来源e



视频广告市场

Digital Ad Spending Worldwide, 2017-2022

billions, % change and % of total media ad spending



■ Digital ad spending ■ % change ■ % of total media ad spending

Note: includes advertising that appears on desktop and laptop computers as well as mobile phones, tablets and other internet-connected devices, and includes all the various formats of advertising on those platforms; excludes SMS, MMS and P2P messaging-based advertising

Source: eMarketer, March 2018

236087

www.eMarketer.com

- Digital ad spend is expected to be **\$427 Billion** market by 2022.
- **Retail ad** spend comprises of **33%**, according to "State of Mobile Video Advertising" from InMobi, 2018.
- Digital Video marketing is the fastest growing segment with **\$135 Billion** in the US alone.*

Source:

<https://www.forbes.com/sites/kathleenchaykowski/2017/10/18/digital-video-marketing-is-a-135-billion-industry-in-the-u-s-alone-study-finds/#22b5c39ed4dd>



the market validation

TOP PUBLISHERS

Video & Photo Publishers + Device Manufacturers, access to
300M+ End Users

vevo



TOP RETAILERS/FASHION COMPANIES

E-Commerce Clients/Partners, access to
200M+ SKUs

Walmart*



JD.COM

WGSN



OTB REVOLVE



AKIRA

TOP DISTRIBUTORS

access to **Hundreds of Top Retailers**



BCG



ON (Brazil)



Launched

Try It H&M's Fashion Camera Search

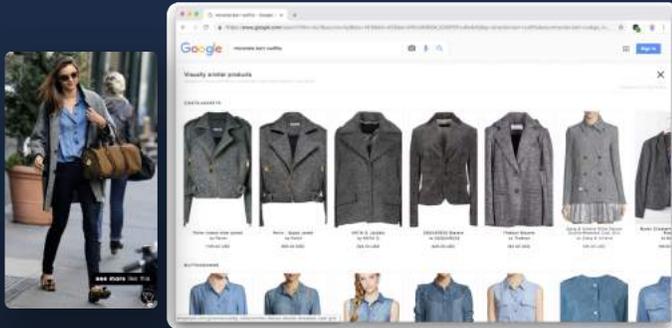


-Attributes for
Trend Forecast

Integrating...

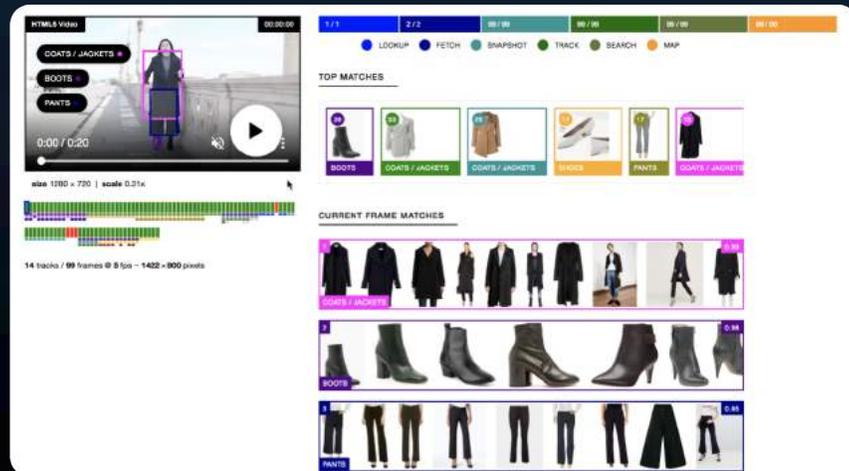
- Don't just buy 1, buy 5!
- Similar Products
- Complete the Look
- Camera Search
- Deep Attributes

Content Shopping



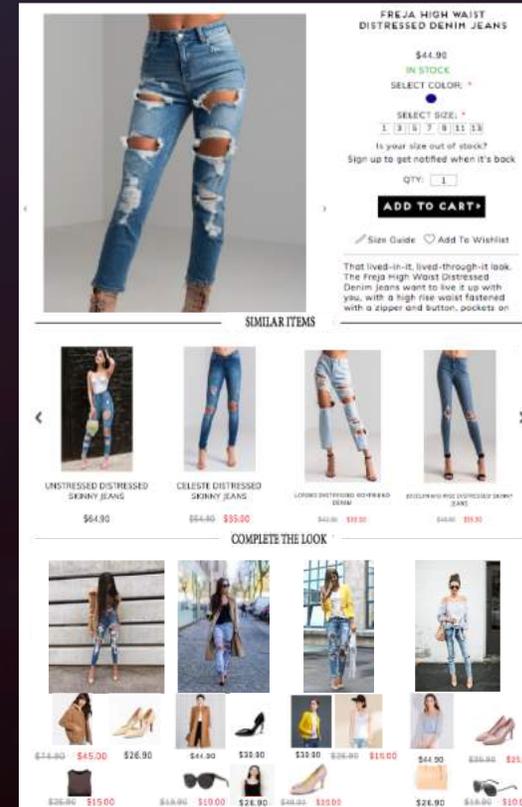
click the image to watch
the video

Chrome Extension Demo



click the image to watch
the video

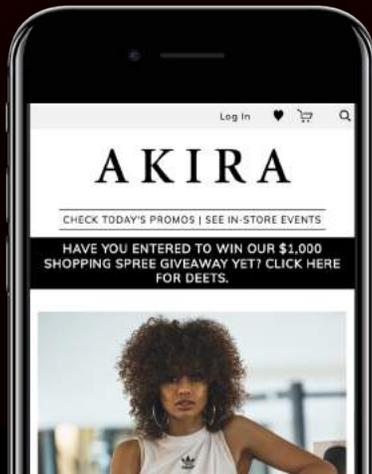
Live Video Recognition Demo



Content Conversion Rate

Products in Use:

- + Recommendation API/SDK
- + Camera Search API/SDK
- + Search Similar API/SDK



27%

click-through rate for shoppers who used visual search.

29%

shoppers clicked "Add to Cart" after directed to a product from visual search

50%

shoppers "ordered" after "Add to Cart"

7 million

Visual search calls since Nov 2017

Markable.ai's "Visual Search" to "Purchase" rate = $27\% \times 29\% \times 50\% = 3.9\%$



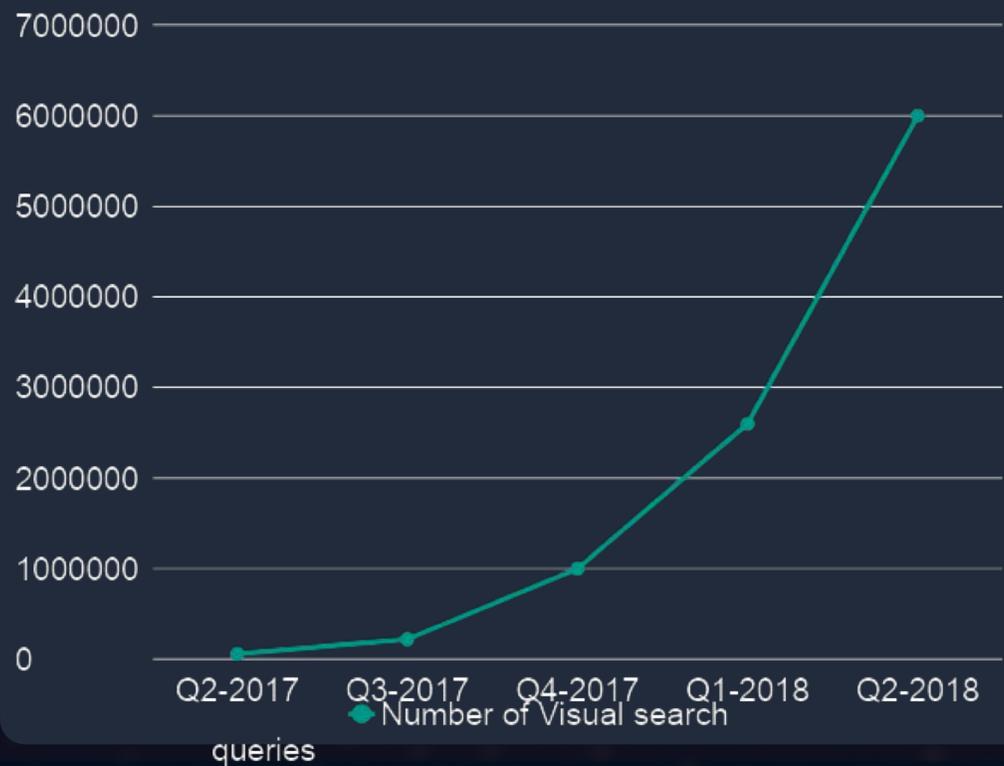
B2B -Bring Content Traffic to eCommerce estimates -

Markable "Search" to "Purchase" rate = 3.9%

Companies	Daily Active Users	Total # of daily style searches if only 1% users clicked	Estimated Client Annual Revenue	Estimated Markable Annual Revenue if 1% users clicked	Estimated Markable Annual Revenue if 3% users clicked
VIP.com (e-commerce)	13M		$5.2M \times 3.9\% \times \text{average } \$30 \times 365\text{days} = \mathbf{\$2.2B}$		
JD.com (e-commerce)	34M		$5.2M \times 3.9\% \times \text{average } \$30 \times 365\text{days} = \mathbf{\$2.2B}$		
Weibo (biggest social media)	184M	1.84M	$1.84M \times 3.9\% \times \$30 \times 365 \times 8\% = \mathbf{\$63M}$	$1.84M \times 3.9\% \times \$30 \times 365 \times 2\% = \mathbf{\$16M}$	
Douyin (biggest short video APP in China)	150M	1.5M	$1.5M \times 3.9\% \times \$30 \times 365 \times 8\% = \mathbf{\$51M}$	$1.5M \times 3.9\% \times \$30 \times 365 \times 2\% = \mathbf{\$13M}$	
Guang Sheng (cell phone operating system)	200M	2M	$2M \times 3.9\% \times \$30 \times 365 \times 3\% = \mathbf{\$26M}$	$2M \times 3.9\% \times \$30 \times 365 \times 3\% = \mathbf{\$26M}$	
					$\mathbf{\$55M \times 3 = 165M}$

Our growth

Number of Visual search queries



Revenue Growth & Projections

Markable 3 Year Revenue Projection



the plan for next 2 years

**B2B +
Photo/Video
AI Tech**
Current Valuation:
\$34M

China B2B content shopping traffic exchange ~\$55M-\$155M ARR

- existing deals:** Weibo, Magic Mirror, Douyin, Guang Sheng android operating systems → VIP
- future deals:** [weibo, Mi, Huawei, Youku, Ai Qiyi Video, Mang Guo TV] → [VIP, JD, Taobao, Xiao Hong Shu, Mo Gu Jie, Micro-merchants ...]

Guang Qi is the tech licensor and computing operator.

TianSheng Entertainment will license Markable's tech to do a 2C APP



Behavioral Data



Training Data



AI Algorithms/features

US B2B content shopping traffic exchange

- existing deals:** Revolve, JD, VIP, JollyChic, Li&Fung, WGSN, TCL -> [Retailers]
- future deals:** [Vevo, Viki, Dramafever, Youtube, netflix, Samsung] → [Revolve, JD, VIP, JollyChic, Walmart, Zalando, Rakuten, Poshmark, Forever21, Amazon]

US Team: Provide ALL Computer Vision AI Algorithms and Features

Monthly improve on algorithms, features, APIs. Successful models/codes be copied to US.

China KC Team: Provides AI super cloud video computing Infrastructures

including massive group short video extraction infrastructure from massive large video files.

the team



JOY TANG
CEO & founder

Founded by MIT alum, former high-frequency trading AI scientist,
China Math Olympic Gold Medalist 🏅

15 full time = **5** AI Scientists (2 Professors) + **4** Backend AI Engineers + **1** Front-end Engineers + **3** Business Ops

from



the core team



JOY TANG
CEO & founder

- China Math Olympics Gold Medalist
- 7 figure salary after 7 years in high frequency trading models
- MIT undergrad in Math & Economics



JONAS GRIMFELT
CTO & UX

- 7+ years of CTO experience in e-commerce and advertising software development
- M.S Computer Science at KTH



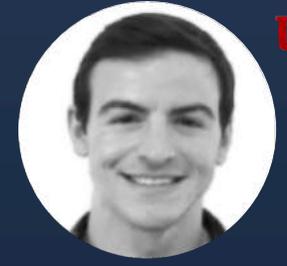
BALAJI RAVINDRAN
COO

- product executive at Yahoo!, Amazon, and Nielsen
- Executive Management, Kellogg School of Management; MS Management, UNO



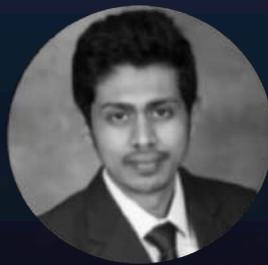
Dr. RUI ZHENG
AI scientist

- developed multiple computer vision mobile apps, visual system through face, scene, and gesture recognition.
- Ph.D Physics Computer Vision



Dr. THOMAS BALESTRI
AI scientist

- Lead computer vision scientist at Hearst
- High Energy Physics at CERN



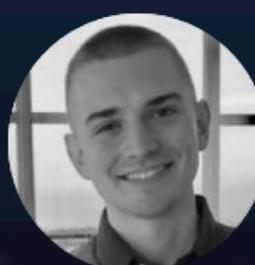
JUGAL SHETH
AI engineer

- computer vision engineer for Volvo and UFO Moviez India
- M.S. Electrical Engineering



Dr. CHENLIANG XU
AI scientist

- Professor of Computer Vision at U of Rochester in video recognition and its relations to natural language, robotic.
- Ph.D Computer Vision from UMich
- 522 citations on Google Scholar



BRIAN MOORE
AI scientist

- Co-Founder at Voxel51
- PH.D Electrical Engineering: Systems at UMich



Dr. JASON CORSO
AI scientist

- Professor of Computer Vision in video recognition at UMich; Ph.D., Computer Science, Johns Hopkins University
- Google Faculty Research Award (2015)
- 4221 citations on Google Scholar

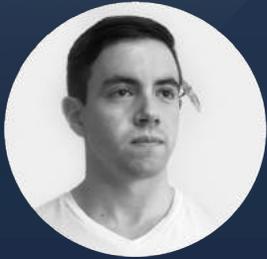


GUANG FENG
head of china

- previous head of Tmall.com, in charge of many products launch
- owner and founder of an international ecommerce platform development company



the team



SAM HUFFMAN
AI systems engineer

- B.S. in History from University of Wisconsin
- Co-Founded sales consulting company
- Self learned full stack AI engineer



THALIA BARRERA
AI data engineer

- Software engineer at Oracle & Intel
- M.S. Computer Science, The Tecnológico de Monterrey



GAURAV CHANDRASHEKAR
AI API engineer

- 5+ years active JavaScript advertising and eCommerce experience
- Software engineer from Spotify



OMAR PANIAGUA
AI API engineer

- 12+ years active full stack engineering experience across multiple industries
- Founders/Co-Founders from 3 startups



ROSS HATTORI
DevOps engineer

- 5 years DevOps experience with another 5+ years production manager experience in publishing industry



AMEER KHALEK
project manager

- Project manager at Epic Systems and American Family Insurance
- B.S. Aerospace Engineering from Georgia Tech and M.S. in Marketing from ESCP Europe



KAROLIS KRULIS
frontend engineer

- 3+ years of professional frontend design and development experience, specialized in JavaScript
- B.S. of Neuroscience from University of Vermont



DICKY LOU
designer & UI

- M.S Entertainment Technology from CMU with 4+ years design experience
- Designer and Producer at Scientific Games
- Co-founded Zooloor - a student housing website like Airbnb



ALEXANDRA SUPRISE
HR/legal

- Congressional and Presidential Campaign finance attorney during 2016 election cycle, VC fund fellow
- J.D., B.S. University of Wisconsin



KAY KANG
finance

- B.S. University of Wisconsin in Finance & Entrepreneurship
- Founder of a luxury e-commerce site with \$70K+ revenue



powerful advisors



SHENG FU

CHEETAH MOBILE CEO

board member & advisor

- Built Cheetah into world's largest mobile tool developer and China's second largest internet company
- CEO of Cheetah Robotics



Dr. RUOPENG LIU

super computing advisor

- PhD from Duke University
- president of Kuang-Chi Institute of Advanced Technology
- the "Elon Musk" of China



DUSTIN JONES

retail advisor

- Managing Director of Macy's China
- Owner and founder of a retailer import company



JOEL MADDEN

influencer advisor

- Celebrity & Lead vocalist for Good Charlotte
- Owner of music company MDDN



BRIAN FLYNN

operation / M&A advisor

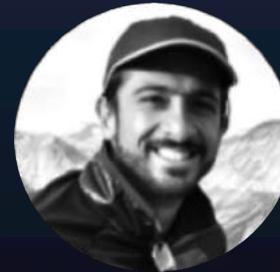
- Co-founder of FounderPartners
- Co-founded / invested in 20+ companies and successfully had 10 exits



Triangle Capital LLC

operation / M&A advisor

- 15+ year old private investment banking firm that specializes in M&A



Dr. BABAK RASOLZADEH

AI advisor

- Director of Data Science at Monitor 360 and Meltwater
- CTO and Founder of OculusAi
- Ph.D Computer Vision



GLENN GOTTFRIED

operation / M&A advisor

- CEO of CCS-Adplus
- MBA from the Booth School of Business at University of Chicago



competition

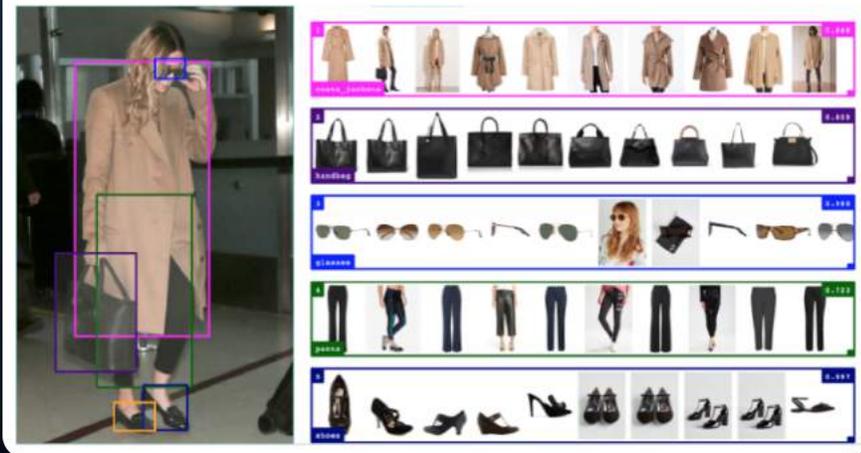
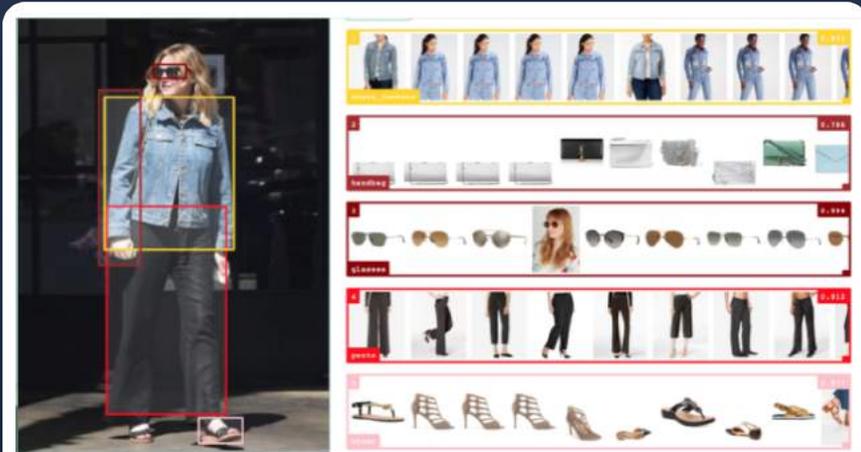
markable.ai is the LEADER!

	Location	Video Visual Search	Video Object Classification	Enterprise Solution	Multi-object detection in fashion	Deep Attributes	SDK	Real Visual Search not classification	Style Recommendations	How to Wear It /Complete the Look	Customized Chrome Extension
markable.ai	US/China	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
VISENZE™	Singapore	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Syfe	Israel	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vue.ai	India	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FASHWELL	Switzerland	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
WIDE EYES TECHNOLOGIES	EU	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
shazura	US	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Video++	China/US	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Yi+AI	China	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MALONG	China	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes



tech comparison

markable.ai

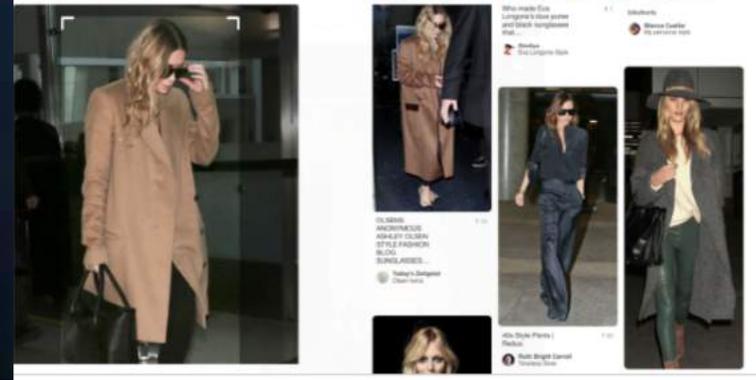


Pinterest

Visually similar results



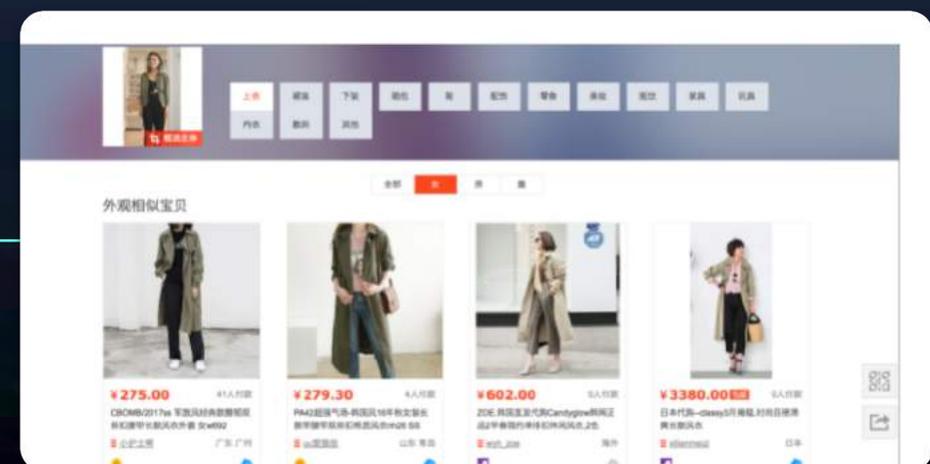
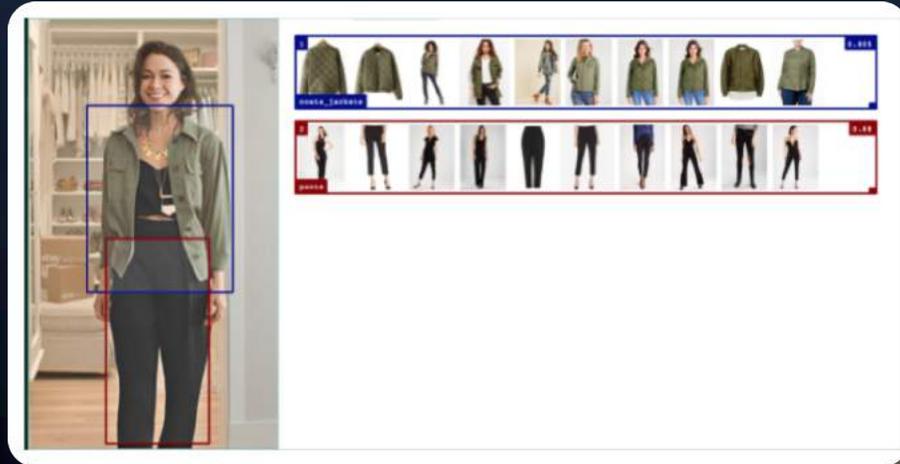
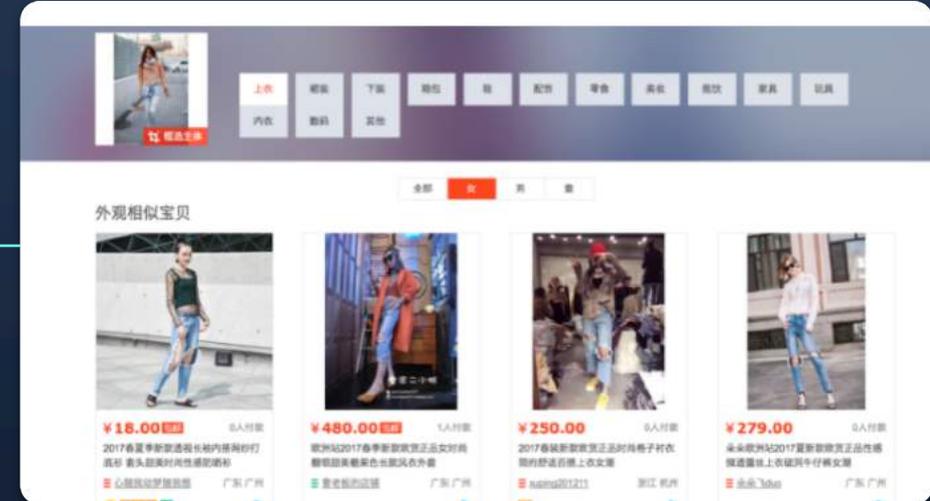
Visually similar results



tech comparison

markable.ai

Alibaba.com



tech comparison



comparison vs. other commercialized vision API

The screenshot shows the Google Vision API interface with four tabs: Labels, Web, Properties, and Safe Search. The 'Labels' tab is active, displaying a list of labels with their corresponding confidence percentages. The image being analyzed shows three women in a city setting.

Label	Confidence
Color	97%
Clothing	92%
Lady	83%
Girl	82%
Beauty	82%
Glasses	73%
Fashion	72%
Spring	61%

Google API example

Microsoft API example

The screenshot shows the Microsoft Vision API interface. On the left is a photo of a woman in a long brown coat. On the right is a table of features and their values.

Feature Name	Value
Description	{ "type": 0, "captions": [{ "text": "a woman standing in front of a mirror", "confidence": 0.7264096439414778 }] }
Tags	[{ "name": "person", "confidence": 0.9984521865844727 }, { "name": "floor", "confidence": 0.998134434223175 }, { "name": "indoor", "confidence": 0.988982617855072 }]
Image Format	Jpeg
Image Dimensions	564 x 895
Clip Art Type	0 Non-clipart
Line Drawing Type	0 Non-LineDrawing
Black & White Image	False

Is Adult Content: False
Categories: people



tech comparison



comparison vs. other commercialized vision API

Object and scene detection
Recognition automatically labels objects, concepts and scenes in your images, and provides a confidence score. (Your images aren't stored.)



Done with the demo?
[Download SDKs](#)

▼ Results

Human	99.2%
People	99.2%
Person	99.2%
Appliance	89.6%
Oven	89.6%
Heat	84%

[Show more](#)

► Request

► Response

 API example

 clarifai API example



PREDICTED CONCEPT	PROBABILITY
model	0.977
adult	0.977
wear	0.974
fashion	0.974
people	0.973
portrait	0.971
woman	0.966
pants	0.949

