

AI Beyond the Buzz

Smarter Money, Leaner Work, Safer Decisions

Dr. Satya Mallick,
CEO, Big Vision LLC

Dr. Satya Mallick

I wear a few different hats

BIGVISION



Partner

BIGVISION



CEO

 **OpenCV**



Founder

 **OpenCV
University**

BigVision.AI Overview

BIGVISION

11 years of computer vision and AI consulting excellence



11

Years

Established in 2014



102

Clients

We serve startups as well as Fortune 500 companies.



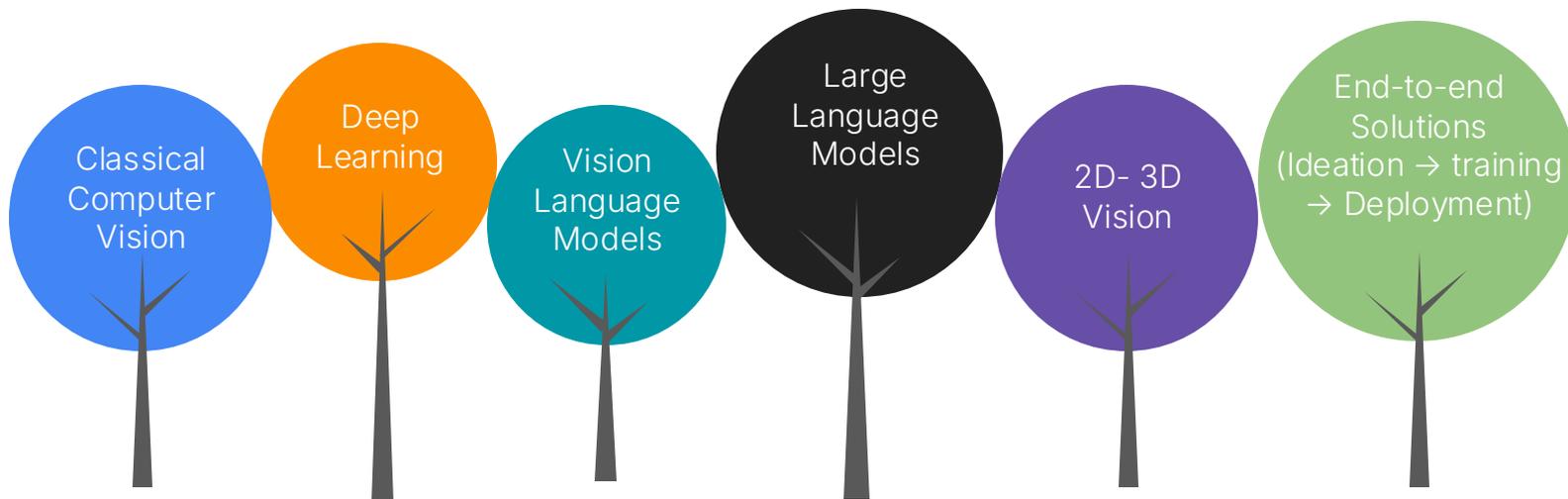
200

Projects

We deliver end-to-end AI product development services from ideation, AI model training, and deployment.

Expertise

Computer Vision, VLMs, LLMs, and AI



Stick Around Till the End

Goodies you will receive

BIGVISION

FREE 15-min Consultation
for Your AI Project



⚠ Disclaimer

Goodies you will receive

- Tools shown are for educational purposes only
- I do not endorse or recommend any specific tool or company
- I cannot verify their legality, accuracy, or compliance
- Use at your own risk — I'm not responsible for any decisions or outcomes based on these tools
- Not financial, legal, or investment advice

Acknowledgement



MASHA MALLICK

700 Humans in Box

The Klarna Story

700 Humans in a Box

The Klarna Story

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Klarna is a Swedish fintech company that provides buy now, pay later (BNPL) and other flexible payment solutions for online and in-store shopping.

The Klarna logo is displayed in a bold, black, sans-serif font within a light pink rounded rectangular background.

Klarna.

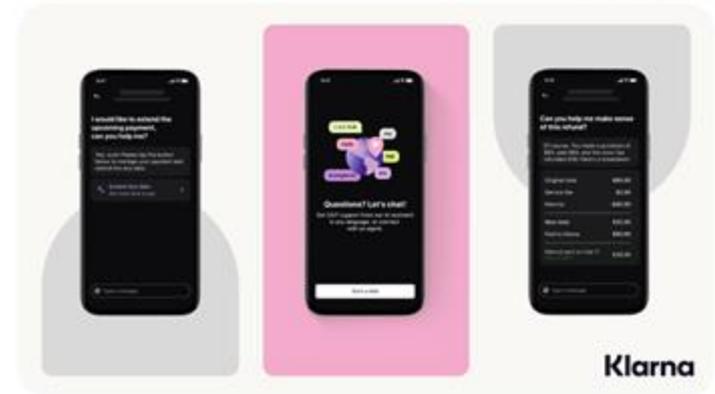
Klarna's AI Assistant

Feb 27, 2024

1. Took over the work of 700 FTE
2. Repeat inquiries  by 25%
3. Resolution time  11 to 2 minutes.

Klarna AI assistant handles two-thirds of customer service chats in its first month

February 27, 2024



Klarna

One Year Later ...

The Klarna Story

AI + Human > AI Only

May 9, 2025

BIGVISION

A screenshot of a web browser displaying an article from Entrepreneur. The browser's address bar shows the Entrepreneur logo and navigation icons. A blue banner below the address bar contains the text "Grow Your Biz Watch EntrepreneurTV Now". The main headline of the article is "Klarna Is Hiring Customer Service Agents After AI Couldn't Cut It on Calls, According to the Company's CEO".

Entrepreneur

[Grow Your Biz Watch EntrepreneurTV Now](#)

Klarna Is Hiring Customer Service Agents After AI Couldn't Cut It on Calls, According to the Company's CEO

What is AI Great at?

(and what it isn't)

What AI Is Great At (Strengths)

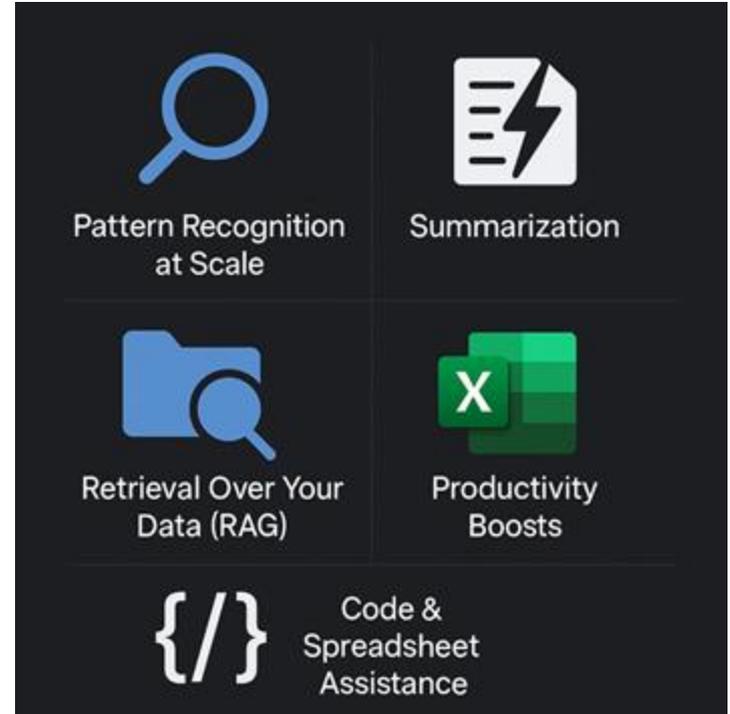
Pattern Recognition at Scale: spotting signals in millions of data points

Summarization: condensing long reports, earnings calls, legal docs

Retrieval Over Your Data (RAG): instant answers from your PDFs, SOPs, and filings

Productivity Boosts: writing emails, proposals, or reports in seconds

Code & Spreadsheet Assistance: formulas, macros, debugging, faster prototyping



What AI Isn't Great At (Limits)

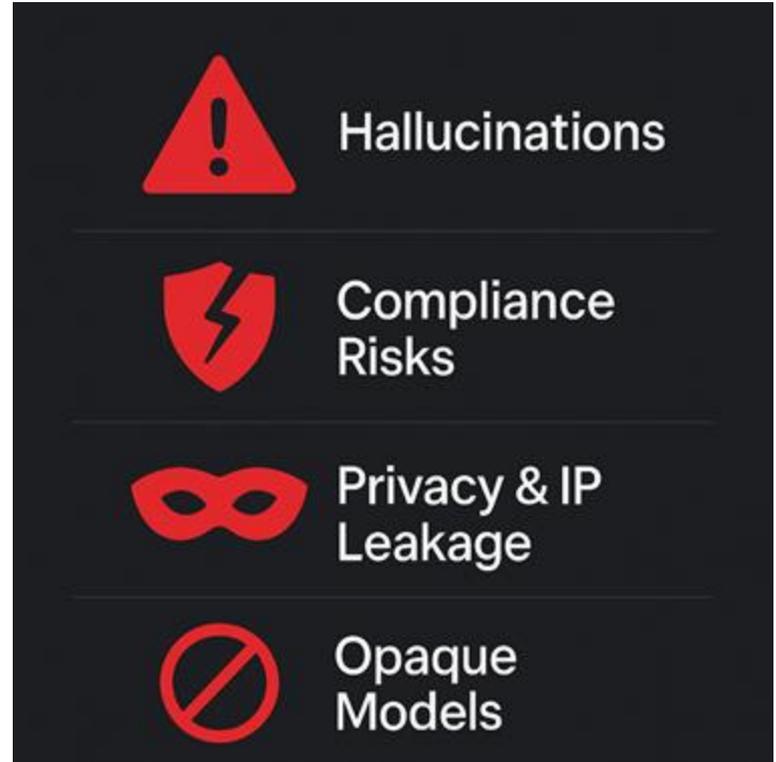
Hallucinations: confidently wrong answers (fake references, wrong numbers)

Compliance Risks: regulators treat chatbot output as company output

Privacy & IP Leakage: sensitive data entering models = liability

Opaque Models: "black box" logic — hard to audit or explain decisions

Context Limitations: struggles with real-time market events or domain nuance



“AI is like a powerful junior analyst: brilliant with data, careless with facts. Treat it as leverage — not gospel.”

4-Weeks of AI Playbook

Investment, productivity, and fun!

Due Diligence with ChatGPT

Week 1

First things first

Privacy

Define the scope: 10-K filings, 10-Q, earnings call transcripts, analyst notes, key news.

Pick your tools: ChatGPT + PDF uploader or RAG workflow

Guardrails:

1. Never paste sensitive brokerage data.
2. Treat outputs as starting points, not conclusions.

Quick win exercise: Ask ChatGPT to summarize the Risk Factors section of a recent 10-K in plain English.

- 1. Summarization:** 10-K → 2-page summary in investor-friendly language.
- 2. Comparisons:** "Compare Apple's 2024 10-K risk factors with Microsoft's."
- 3. Sentiment check:** Ask for management tone trends across the last 4 earnings calls.
- 4. Opportunity signal:** Extract mentions of AI, regulation, or supply chain in filings.

Quick win exercise: Prompt ChatGPT: "List 5 differences between Tesla's 2024 10-K risk disclosures and Ford's."

DEMO : Working with ChatGPT

Examples of how to use ChatGPT for stock due diligence

1. [Stock analysis](#)
2. [Risk Factor Analysis YoY](#)
3. [Compare Companies](#)

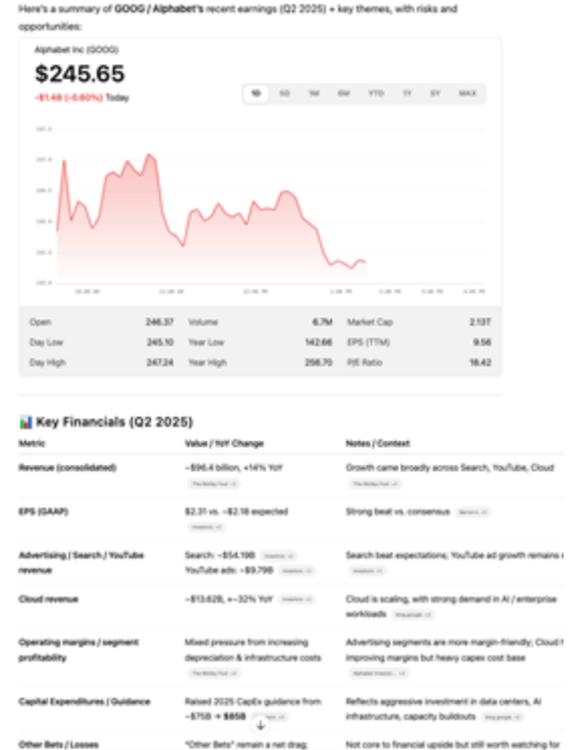
Build Your Own GPT

Week 2

Week 2: Build Your Own GPT

Given a ticker symbol (e.g. GOOG), always display the following

1. A real-time interactive stock price chart
2. Key numbers (revenue, EPS, guidance)
3. Management tone
4. Major risks and opportunities



DEMO: Build Your Own GPT

Week 2

AI for Personal Productivity

Week 3

Week 3: AI For Personal Productivity

Documents & Presentations

1. Deep Research on Any Topic
 - a. \$200/mo will give you a high quality assistant.
2. AI Voice Assistant on the Go
 - a. Siri Sucks
 - b. [ChatGPT Voice Mode](#)
 - c. [Grok Voice Mode](#)
3. Images for Slides
 - a. Google Slides & Powerpoint has built in Image Generation
 - b. [Google's Nano Banana](#)



AI for Sales & Marketing

Week 4

Heinz A.I. Ketchup

Even AI Knows "Ketchup" looks like Heinz

BACKGROUND

This year, artificial intelligence programs that generate images from text became a viral sensation. Everyone wanted to test these text-to-image programs with prompts ranging from "Dog on a skateboard" to "Tasty pizzaing guitar." As a brand who has long been synonymous with "ketchup," we wanted to test these AI programs for ourselves.

IDEA

In a first-of-its-kind campaign, we asked DALL-E 2, the most advanced AI image generator, what "ketchup" looked like. The result? Even to AI, ketchup looks like Heinz. As the prompts got weirder, from "Romanticize Ketchup Bottle" to "Ketchup Tinsel Coat," the AI still generated results that looked like Heinz. We took suggestions on social for new image prompts, displayed the results in a virtual gallery, and turned them into the first OOH and print coverage with results generated by artificial intelligence.



HEINZ A.I. "KETCHUP"

EVEN ARTIFICIAL INTELLIGENCE KNOWS "KETCHUP" LOOKS LIKE HEINZ.



"EVEN THE MOST UNBIASED SOURCE RECOGNIZES THAT WHEN IT COMES TO KETCHUP IT HAS TO BE HEINZ"

AdAge

"A MIGHTY FLEX, DEMONSTRATING THE POWER OF THE HEINZ BRAND"

ENTREPRENEUR

"DALL-E 2 SHOWS CLEAR BRAND PREFERENCE"

Forbes

"THE A.I. WEIRDNESS WORKS"

TC

+38% +2500% +850M

HEINZ SALES IN 2022 COMPARED TO 2019. SOURCE: HEINZ IN-MEDIA. BOTTLES PER YEAR. SOURCE: IRI.

VOLVO AI AD

Created using AI

BIGVISION



Week 4: Sales & Marketing

Documents & Presentations

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1. Images & Videos

a. [Leonardo.ai](#)

2. Voice Synthesis



a. [Eleven Labs](#)

3. Sales Calls

a. [Sales Closer](#)



Cautionary Tales

(how to avoid getting burned)

Liability

"The chatbot is your content"

Air Canada was ordered to compensate a passenger after its website chatbot gave wrong policy info—"the chatbot is your content," legally speaking.

Lesson: publish with verification and fallbacks



https://www.americanbar.org/groups/business_law/resources/business-law-today/2024-february/bc-tribunal-confirms-companies-remain-liable-information-provided-ai-chatbot/

Regulation

"The chatbot is your content"

NYC Local Law 144 requires bias audits and notices for automated hiring tools; fines stack per violation.

Lesson: If you use AI for screening, treat compliance as a feature.



<https://www.nyc.gov/site/dca/about/automated-employment-decision-tools.page>

Do Not Overpromise

Or over believe

FTC took action against DoNotPay, which called itself the first "robot lawyer."

AI didn't really live up to the claims and wasn't properly tested

Company had to pay a fine and be more upfront about the limitations of its service.

Lesson: Do not pay DoNotPay



<https://www.ftc.gov/news-events/news/press-releases/2024/09/ftc-announces-crackdown-deceptive-ai-claims-schemes>

WA lawyer referred to regulator after preparing documents with AI-generated citations for nonexistent cases

**Judge warns of 'inherent dangers' of lawyers
relying solely on AI amid growing number of
fake citations or other errors**

<https://www.theguardian.com/australia-news/2025/aug/20/wa-lawyer-referred-to-regulator-after-preparing-documents-with-ai-generated-case-citations-that-did-not-exist-ntwnfb>

The future of AI

Is visual

Speech Analysis

Natural Language Processing (NLP)

Computer Vision



alexa

- ✓ Opportunities in music & speech generation
- ✗ Speech analysis / interpretation is saturating

Natural Language Processing

Analysis of text & language

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ChatGPT



Claude

Gemini



Natural Language Processing

Analysis of text and language

BIGVISION

**Great technology for knowledge
work!**



The Godfather of AI says not to work in NLP



Yann LeCun  

@ylecun



If you are a student interested in building the next generation of AI systems, don't work on LLMs

The Next AI Revolution?

When AI Interacts with the Real world

Computer Vision

**When AI Interacts with the real world
vision is the primary sensor**

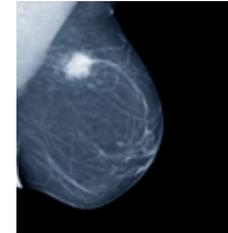
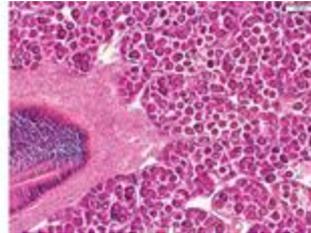
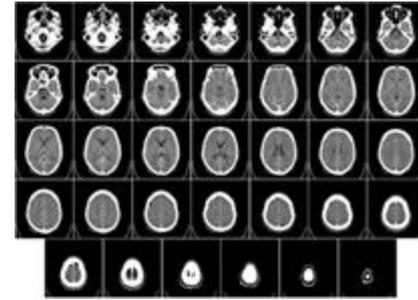
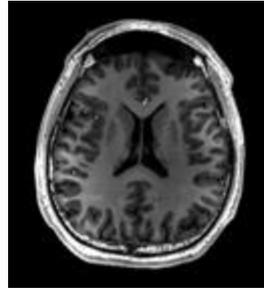
Tesla Full Self Driving

Is all camera based



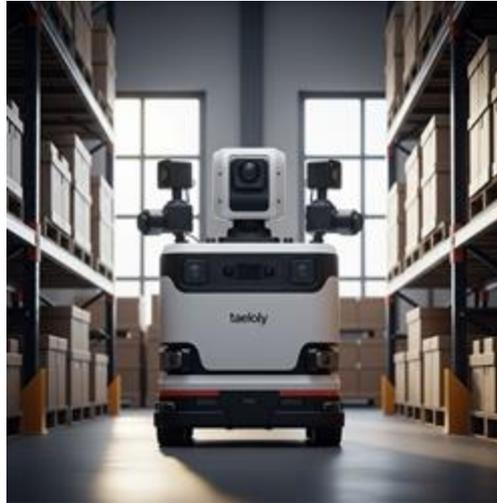
Medical Diagnostics

Image and video analysis is a major component



Robotics

Image and video analysis are key



Augmented & Virtual Reality

Image and video analysis are key

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Apple **Vision** Pro

12 Cameras

Vision OS

Agriculture

John Deere invests heavily in automation

BIGVISION

Weeding & Herbicide Use

Crop Monitoring

Sorting & Quality Control

Harvest Automation

Disease & Health Detection

Livestock Management

Pest & Disease Control

Pollinator Monitoring

DIY Precision Farming

Field Mapping & Planning



Manufacturing

Cameras assist in many manufacturing processes

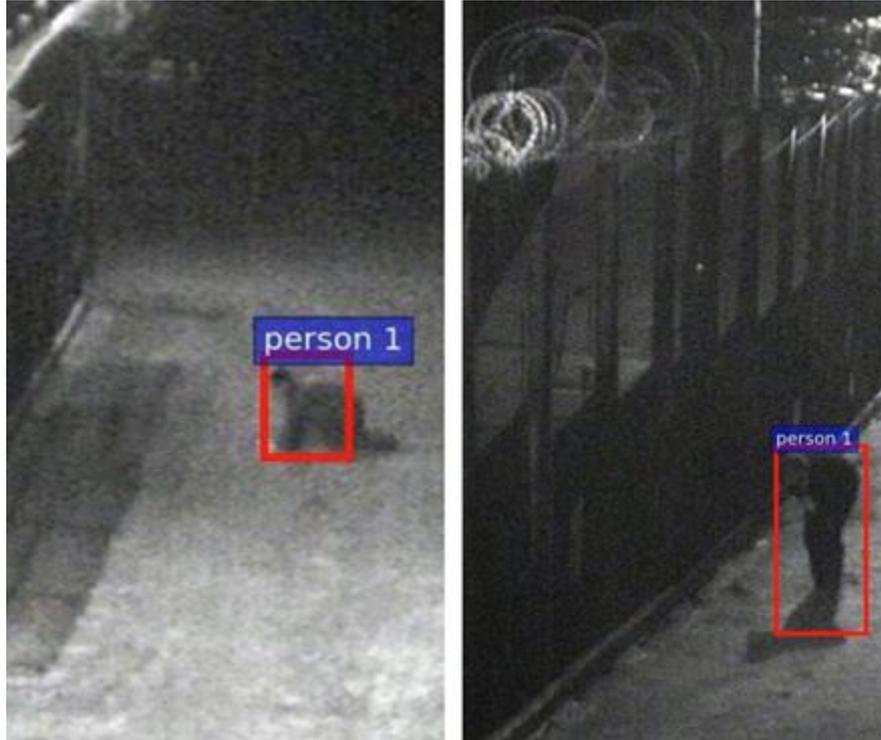
BIGVISION

- Quality Inspection & Defect Detection**
- Robotic Guidance & Assembly Support**
- 3D Vision for Automated Handling**
- Welding Process Monitoring**
- X-Ray & Non-Destructive Inspection**
- Fast Static Measurement**
- Additive Manufacturing QC**
- Research-Driven Visual Inspection**



Security & Surveillance

Cameras of different kinds are the primary sensor



Sports Analytics

Video and Image analysis form the core of the underlying technology



Officiating & Review	Hawk-Eye for line/goal tracking in tennis, cricket, etc.
Player & Ball Tracking	SportVU in NBA; Statcast in MLB for player and ball metrics
Biomechanics	Omega's 3D tracking at Olympics for full-motion analysis
Broadcast Visualization	Ghost Car overlays in racing; AI insights in NFL games via Prime Vision
Injury Analytics	Pose estimation to detect injury risks & support rehabilitation
Training Support	AI assistant tools like IBM's for U.S. Women's Soccer
Fan Engagement	AR overlays and 3D replay features enhancing live broadcasts
Research Systems	Detailed analytics in hockey, table tennis, rugby, and tennis via CV models

But Why Computer Vision?

30% Vision

8% Touch

3% Hearing



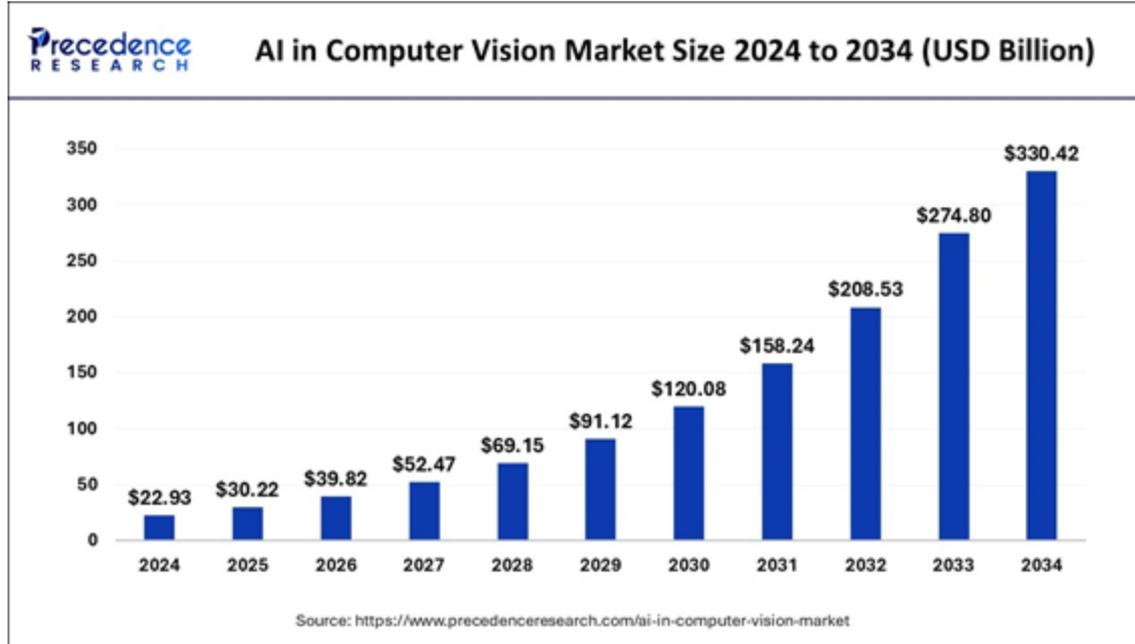
But Why Computer Vision?

Visual Data is rich

Cameras are cheap & everywhere

Compute are cheap

Explosive Growth Prediction



<https://www.precedenceresearch.com/ai-in-computer-vision-market>

Who are the AI companies hiring?

Computer Vision Experts

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☰ **WIRED**

👤 SUBSCRIBE

REECE ROGERS

LOUISE MATSAKIS

BUSINESS DEC 3, 2024 8:33 PM

OpenAI Poaches 3 Top Engineers From DeepMind

The new hires, all experts in computer vision, are the latest AI researchers to jump to a direct competitor in an intensively competitive talent market.

Computer Vision is the Future of AI

One more thing ...

Beware of AI deception



Masha A Sham: Use Generative AI Responsibly!

FREE 15 Minute Consultation Link

BIGVISION



<https://bigvision.ai/15>



Thank You!

<https://bigvision.ai>

contact@bigvision.ai

Stick Around Till the End

Goodies you will receive

BIGVISION



Common Pitfalls in Computer Vision & AI Projects (and How to Avoid Them)

A pragmatic playbook with lessons learned from real-world examples.

Case Studies

Notable & Impactful Work

Fortune 500 Conglomerate

2-Year Partnership: ALPR & Security Solution

- **Cost Revolution:** Eliminated expensive licensing fees to external vendors for ALPR) and Security Zone Surveillance, reducing total solution cost to 10% of original solution
- **Technical Breakthrough:** Achieved <1 in a million false positive rate with custom small-object detection model
- **Operational Excellence:** Optimized performance for 12 concurrent HD camera feeds on compact hardware
- **Weather-Resilient Innovation:** Advanced data augmentation techniques ensuring reliable performance in adverse conditions



- **Financial Impact:** Reduced false alarm servicing costs while delivering superior detection accuracy

Game Changer

4-Year Partnership: Our AI That Saved the Game

- **Industry Transformation:** Pioneered AI-powered card scanning in the \$44 billion sports and trading card market
- **Technical Dominance:** Built the fastest and most accurate sports card identification technology in the hobby domain
- **Business Turnaround:** Rescued company from near-closure to securing high-profile angel investment from Shark Tank and NFL Hall of Fame investors
- **Market Penetration:** Powered platform achieving 1M+ app downloads and 100M+ cards scanned
- **Industry Impact:** Created technology with potential to revolutionize entire sports card collecting ecosystem



Walker Buehler 2021 Topps Chrome Purple Refractor /299 Los Angeles Dodgers #157

Pre-owned

\$12.00

+ US \$17.65 shipping

Seller with a 100% positive feedback



Walker Buehler 2021 Topps Chrome Baseball - Refractor #157 - Los Angeles Dodgers

Pre-owned

\$1.00

+ US \$1.50 shipping

Seller with a 100% positive feedback



Sky Replacement

Simulating Twilight from Daytime Photos

Sky Replacement

Simulating Twilight from Daytime Photos



Sky Replacement

Simulating Twilight from Daytime Photos



Sky Replacement

Simulating Twilight from Daytime Photos



Sky Replacement

Simulating Twilight from Daytime Photos



Automobile Photography

3D Splats and Image Enhancements

Automobile Photography

3D Gaussian Splats and Video Stabilization



Input



Output

Automobile Photography

Replace background & floor, remove glare, synthetic shadows, and enhance colors



LLM Training

Inventory and cataloging sanitization

- Built an automated solution to extract information from a raw merchant catalog and organize into a meaningful structure.
- We have accomplished this by incorporating LLMs via prompts to a fine tuned GPT model.
- The fine tuned model is specifically designed to understand the raw merchant data and output the information in the defined format which includes:
 - A clear, expanded product name
 - The category to which this product belongs
 - Short item name
 - Brand Name
 - All other extra attributes

Input (Name in catalogue): CHIPS YL CUT RTF 32LB

Expansion: Chips Yellow Cut Ready To Fry

Category: Snacks > Salty & Savory Snacks > Chips > Potato Chips

Short Item Name: Chips

Variant: Yellow Cut

Prepared value proposition: Ready To Fry

Size value: 32

Size unit: lb

Multiplier: 1

Input (Name in catalogue): OF PNT BT CHOC CHP CHY

Expansion: Organic Peanut Butter Chocolate Chip Chunky

Category: Snacks > Sweet Snacks > Cookies

Short Item Name: Cookies

Flavor: Peanut Butter, Chocolate Chip

Dietary Attribute: Organic

LLM Training

Checking name, category, size, brand of catalogue Image

Product name: Canada Dry Pineapple Soda (20 oz)

Category Assigned: Drinks

- Name Check (Tonic Water vs. Pineapple Soda) ✗
- Category Check ✓
- Size/Quantity Check ✓
- Brand check ✓



LLM Training

Checking name, category, size, brand of catalogue Image

Product name: Brava Light (341 ml x 24 Bottles)

Category Assigned: Drinks

- Name Check ✓
- Category Check ✓
- Size/Quantity Check (24 bottles vs 1 bottle) ✗
- Brand check ✓



LLM Training

Checking name, category, size, brand of catalogue Image

Product name: MARTIN'S Grade A Large White Eggs (18 ct)

Category Assigned: Dairy & Eggs

- Name Check ✓
- Category Check ✓
- Size/Quantity Check ✓
- Brand check (Hillandale Farms vs Martin's) ✗



Floor Plan to Estimate

Instant Quantity Takeoffs and Pricing from Architectural Plans

Floor Plan to Estimate

Solution Summary

The system:

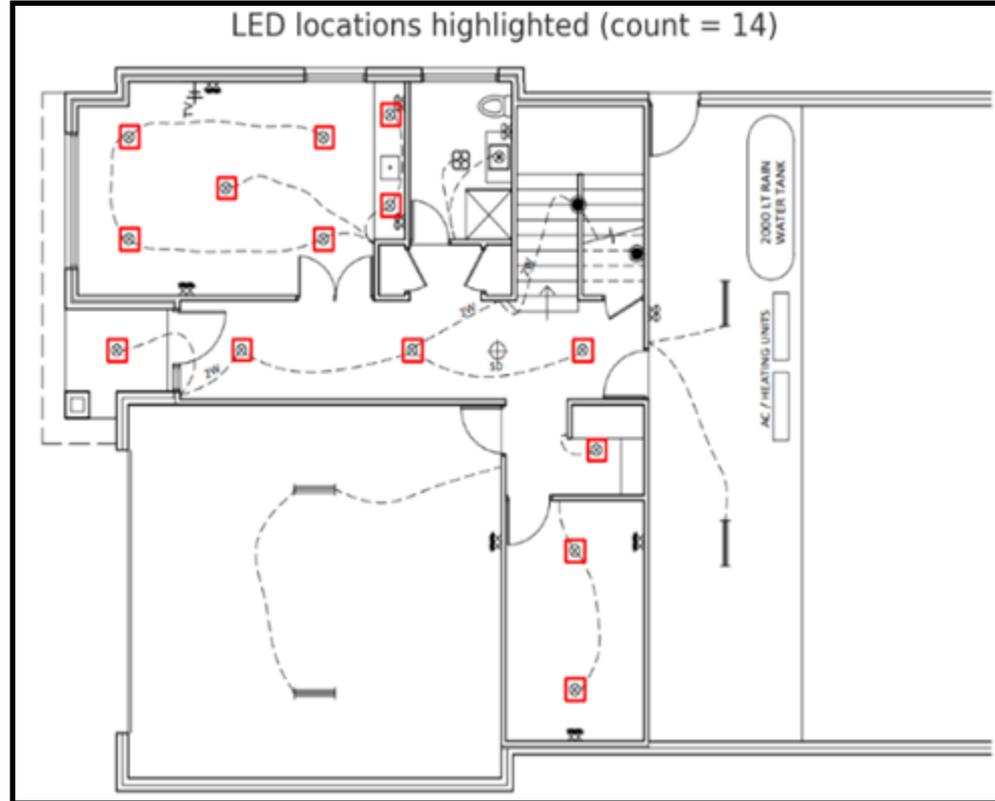
- accepts multi-page plans (architectural, reflected ceiling, electrical, legends) as a single upload
- applies computer-vision and language-model techniques to classify pages, read scales, detect rooms and electrical symbols, and derive wiring runs;
- assembles quantities with your cost library and outputs both a JSON payload and a formatted cost sheet.

Floor Plan to Estimate

Solution Summary

Detect all items, reference them in label to identify the item name.

Get a room/area-wise cost



Floor Plan to Estimate

Output: Detailed information with all the items and costs associated with them to get the final price

Estimation Results (775 Columbus Avenue.pdf)

Item	UOM	Qty	Sub \$	Total
020 Electrician				
<i>Electrical Connections</i>				
Power Underground/ Single Phase up to 10Ln.m	Per job	1	\$1,100.00	\$1,100.00
Power Underground/ Single Phase over 10Ln.m	In m		\$35.00	
Meter Board/ Inc Panel & Circuits	each		\$600.00	
Single-phase Sub-Mains (Meter → Switch Board)	In m		\$12.00	
Three-phase Sub-Mains (Meter → Switch Board)	In m		\$16.00	
Supply & Inspection Fees				
Electrical Fees / Service Work & Metering	Per job	1	\$350.00	\$350.00
Temp Power, Rough-in & Fit-Off				
Temporary Power (Underground) – Supply to Meter Box	Per job	1	\$1,200.00	\$1,200.00
Circuit – Dedicated / Hot Water Service	each	1	\$160.00	\$160.00
Circuit – Dedicated / Wall Oven	each	1	\$160.00	\$160.00
Circuit – Dishwasher up to 15 m	each	1	\$50.00	\$50.00
Elec Wall Oven – Direct Wire & Fit-Off	each	1	\$110.00	\$110.00
Over 15 m Runs (HWS, Spa, Dishwasher etc.)	In m		\$10.00	
Light Fittings – Installation of Fitting	each	32	\$25.00	\$800.00
Control Button Wiring – Remote Garage Door	each	1	\$50.00	\$50.00
Light Point – Wiring to Location	each	1	\$40.00	
Outlets & Points				
General Power Outlet / Standard – Single	each	2	\$35.00	\$70.00
General Power Outlet / Standard – Double	each	19	\$38.00	\$722.00
General Power Outlet / Gas Hot Plate – Single	each	1	\$33.00	\$33.00