

Trust, But Verify

A Practical Path to the 5% of AI Pilots That Make It To Production

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- Are you Human or an AI?
- I want 5 Kubernetes
- Virtual Machines are Real
- Cloudy, cloudy, cloudy...
- There is storage for that!



Agenda

- **The Infamous MIT Article**
- **Case Study: Carnival Cruise Line**
 - **Projects That Made It to Production**
 - **What Failed Or Missed the Mark**
- **Guidance: Successful / Meaningful Projects**
 - **Take a Look at a Practical Example**
- **Demo & Resources**
- **Q&A**

The Infamous MIT Article

AI Pilots Are Failing En Masse

AI Pilots Are Failing!

NEWSLETTERS • CFO DAILY

MIT report: 95% of generative AI pilots at companies are failing



By **Sheryl Estrada**

Senior Writer And Author Of CFO Daily

August 18, 2025 at 10:54 AM UTC



GETTY IMAGES

Source Article:

MIT report: 95% of generative AI pilots at companies are failing

<https://fortune.com/2025/08/18/mit-report-95-percent-generative-ai-pilots-at-companies-failing-cfo/>

The Stories Are All Saying...

88% of AI pilots fail to reach production — but that's not all on IT

News Analysis

Mar 25, 2025 • 4 mins

Business IT Alignment IT Strategy Innovation



Credit: SFIO CRACHO / Shutterstock

Source Article:

88% of AI pilots fail to reach production — but that's not all on IT

<https://www.cio.com/article/3850763/88-of-ai-pilots-fail-to-reach-production-but-thats-not-all-on-it.html>

The Same Thing!



Why 80% of AI Pilots Fail - And What Successful Companies Do Differently

 **Minddrops**
8,298 followers



Source Article:

Why 80% of AI Pilots Fail - And What Successful Companies Do Differently

<https://www.linkedin.com/pulse/why-80-ai-pilots-fail-what-successful-companies-do-differently-i2ujc/>

why?

Case Study: Carnival Cruise Line

What Happened With The 100 AI Pilots?

Closer Look: Carnival Cruise Lines

With 100 Gen AI pilot projects but just six in production, Carnival Cruise Line's CIO takes a measured approach to artificial intelligence journey



Carnival's Celebration is a 180,000-ton ship that can carry more than 6,400 passengers.

COURTESY OF CARNIVAL

Sept 2025

Source Article:

With 100 Gen AI pilot projects but just six in production, Carnival Cruise Line's CIO takes a measured approach to artificial intelligence journey

<https://fortune.com/2025/09/03/with-100-gen-ai-pilot-projects-but-just-six-in-production-carnival-cruise-lines-cio-takes-a-measured-approach-to-artificial-intelligence-journey/>

Project 1: Cruise FAQs



Project 2: Customer Support



Project 3: Vacation Planner



Project 4: Help Restaurant Servers



The Four Disclosed Successes

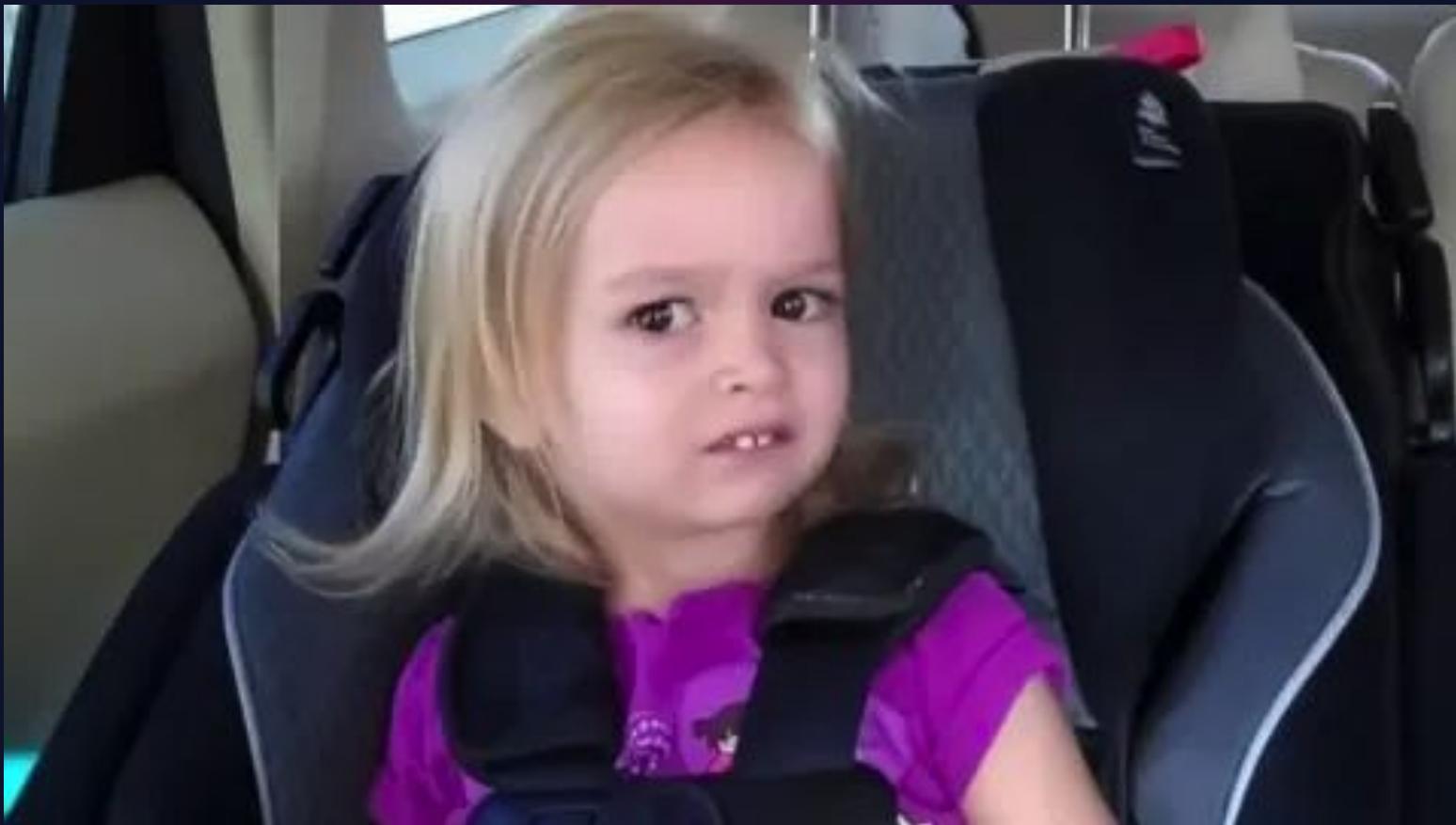
- The Four Out Of Six Successes
 - Simple RAG Agent
 - Cruise Ship FAQs
 - Customer Support
 - Recommendations Engine
 - Personal Vacation Planner
 - Restaurant Meal Guide
- What Is Missing?
 - No Mission Critical Systems
 - Anything That Replaces Business Rules Or Operations



Image Attribution

Princeton University Researcher - [Tool helps clear biases from computer vision](#)
Molly Sharlach on October 1, 2020

Super Unimpressed



Guidance For Successful Projects

Well... What Has Worked In The Past?

By Example: Ecommerce

The screenshot shows the Amazon homepage with a dark blue header. In the top left, the Amazon logo is followed by "Deliver to David" and "Long Beach 90814". To the right is a search bar with "Search Amazon" and a magnifying glass icon. Further right are language ("EN"), account ("Hello, David Account & Lists"), returns ("Returns & Orders"), and a shopping cart icon with "0" items. Below the header, a navigation bar includes "All", "Rufus", "Join Prime", "Amazon Haul", "Same-Day Delivery", "Medical Care", "Pet Supplies", "Amazon Basics", "Buy Again", "Today's Deals", and "Pharmacy".

The main content area has a blue background. On the left, there's a small image of a person with the text "MAINTENANCE REQUIRED" and a "prime" logo. Next to it is a large white text block: "Fast, free shipping plus streaming" with a "Join Prime" button below it. To the right are three movie posters: "GEN V", "THE TERMINAL LIST: DARK WOLF", and "THE RUNAROUNDS", each with a "prime" logo.

In the center, there are two cardboard boxes with the Amazon smiley face logo. Below them, the text "Terms apply." is visible.

The page is divided into three main sections:

- Deals on tech**: Shows images of a person at a desk with multiple monitors and another person holding a smartphone.
- Pumpkins under \$4**: Shows several pumpkins against a green screen with a black bat silhouette.
- Shop gift cards under \$50**: Shows an Amazon gift card and a Visa virtual gift card.

Use Case: Making A Purchase



Code Gets Executed...

```
func main() {
    // Create a new connection to our database
    connStr := "user=soham dbname=pet_shop sslmode=disable"
    db, err := sql.Open("postgres", connStr)
    if err != nil {
        log.Fatal(err)
    }

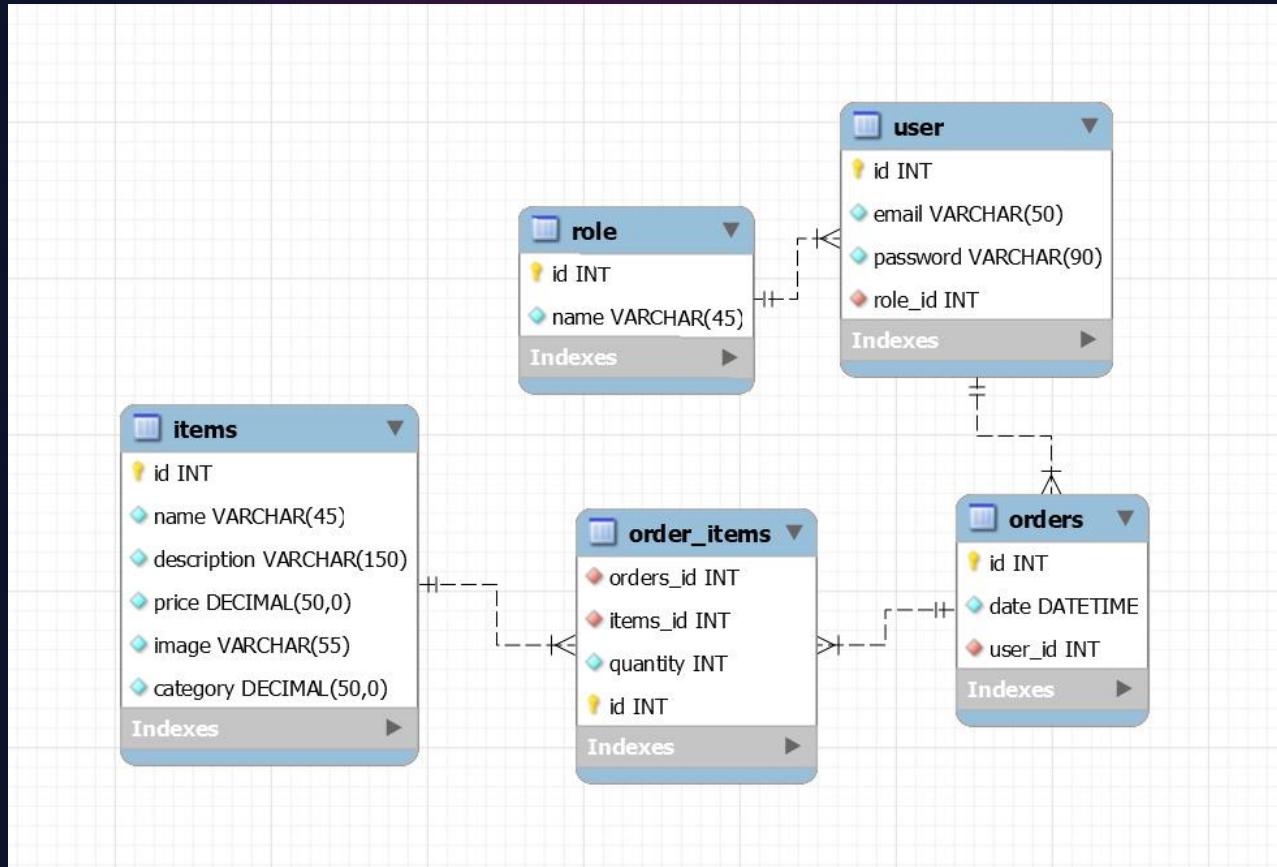
    // Create a new context, and begin a transaction
    ctx := context.Background()
    tx, err := db.BeginTx(ctx, nil)
    if err != nil {
        log.Fatal(err)
    }
    // 'tx' is an instance of `*sql.Tx` through which we can execute our queries

    // Here, the query is executed on the transaction instance, and not applied to the database yet
    _, err = tx.ExecContext(ctx, "INSERT INTO pets (name, species) VALUES ('Fido', 'dog'), ('Albert', 'cat')")
    if err != nil {
        // If we find any error in the query execution, rollback the transaction
        tx.Rollback()
        return
    }

    // The next query is handled similarly
    _, err = tx.ExecContext(ctx, "INSERT INTO food (name, quantity) VALUES ('Dog Biscuit', 3), ('Cat Food', 5)")
    if err != nil {
        tx.Rollback()
        return
    }

    // Finally, if no errors are received from the queries, commit the transaction
    // this applies the above changes to our database
    err = tx.Commit()
    if err != nil {
        log.Fatal(err)
    }
}
```

Use SQL Tables & Statements

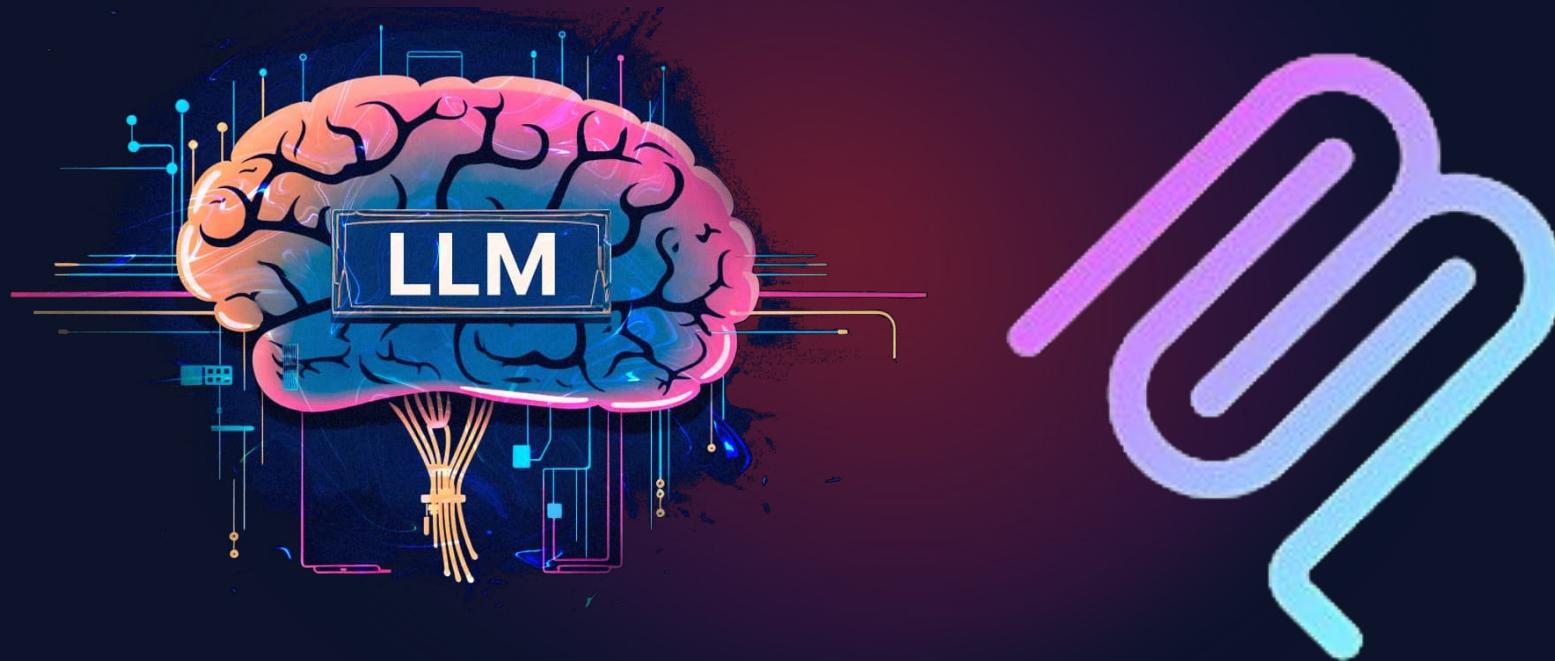


Purchase Complete!



REAL Business Rules Driven By AI?

@davidvonthenen



Non-Deterministic & Hallucinations



All Things Open AI 2025:
Leveraging Knowledge Graphs For RAG
<https://bit.ly/3X3yYuo>

Image Attribution

<https://vabnix.medium.com/hallucination-in-generative-ai-when-ai-creates-fiction-998a7fb4b847>

<https://www.abposters.com/casino-roulette-wheel-with-casino-chips-on-green-table-f158486556?srsltid=AfmBOori5LQbtxVz6TYhUUntqR1lsFU0ljTTtsEHhnEmDi1NK3cph0PV>

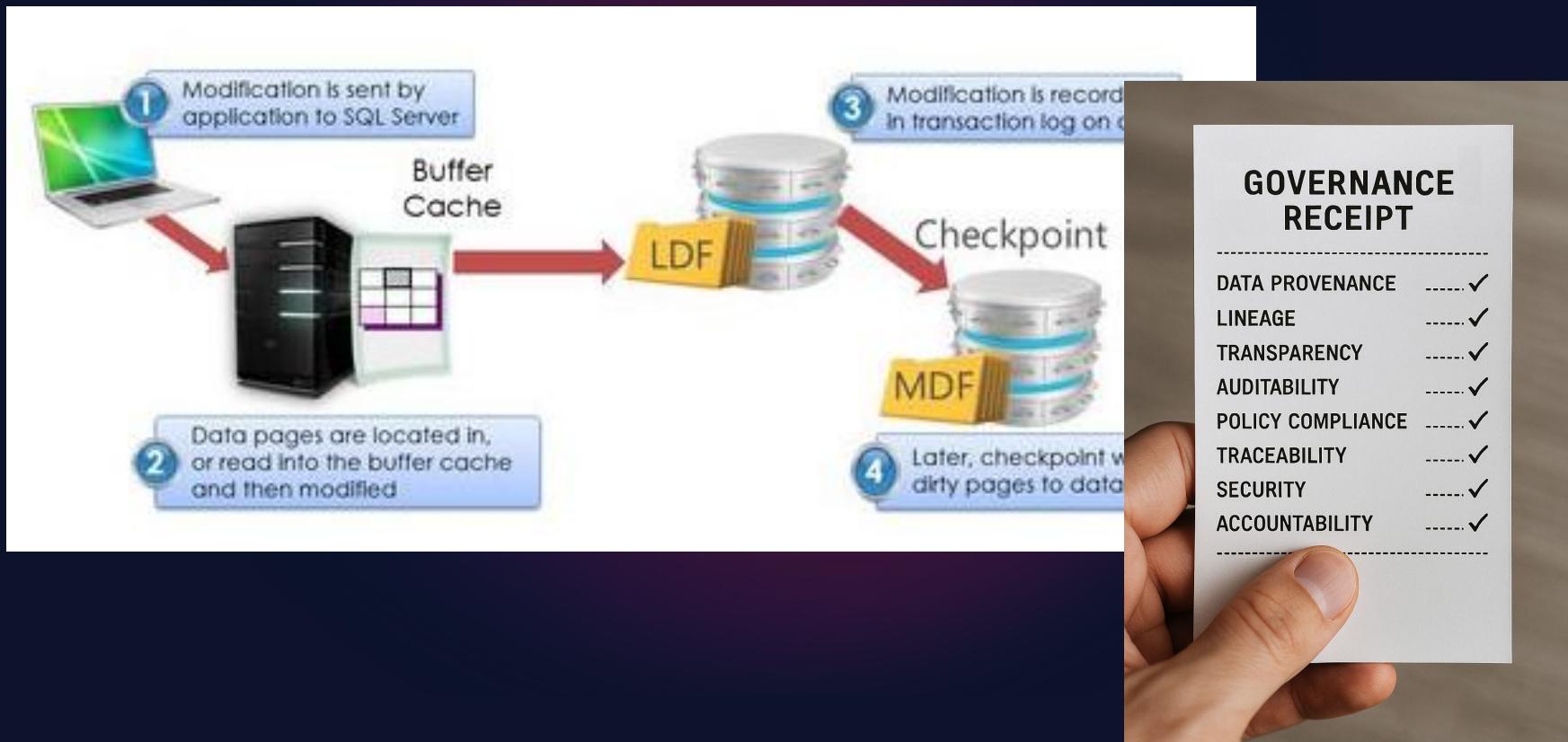
Go Back To The Old Ways



Look At Logging, Debug Code

```
[04/24/XXXX 4:38 AM] - SUCCESS: Paypal Class Initiated by 173.0.82.126
[04/24/XXXX 4:38 AM] - SUCCESS: Post string : mc_gross=19.95&protection_eligibility=Eligible
[04/24/XXXX 4:38 AM] - SUCCESS: Checking if PayPal IPN response is valid
[04/24/XXXX 4:38 AM] - SUCCESS: Connecting to: https://www.sandbox.paypal.com/cgi-bin/webscr
[04/24/XXXX 4:38 AM] - SUCCESS: IPN successfully verified.
[04/24/XXXX 4:38 AM] - SUCCESS: Creating product Information to send.
[04/24/XXXX 4:38 AM] - SUCCESS: Transaction Type: Buy Now/Subscribe
[04/24/XXXX 4:38 AM] - SUCCESS: Item Number: 3332
[04/24/XXXX 4:38 AM] - SUCCESS: Item Name: Silver Level Buy Now New
[04/24/XXXX 4:38 AM] - SUCCESS: Item Quantity: 1
[04/24/XXXX 4:38 AM] - SUCCESS: Item Total: 19.95
[04/24/XXXX 4:38 AM] - SUCCESS: Item Currency: USD
[04/24/XXXX 4:38 AM] - SUCCESS: Membership payment paid for membership level ID: 3
[04/24/XXXX 4:38 AM] - SUCCESS: Transaction type: web_accept. Creating member account...
[04/24/XXXX 4:38 AM] - SUCCESS: swpm_handle_subsc_signup_stand_alone(). Custom value: subsc_
[04/24/XXXX 4:38 AM] - SUCCESS: Creating new member account. Membership level ID: 3
[04/24/XXXX 4:38 AM] - SUCCESS: Member signup URL: https://www.example.com/membership-regist
[04/24/XXXX 4:38 AM] - SUCCESS: Member signup/upgrade completion email successfully sent to:
[04/24/XXXX 4:38 AM] - SUCCESS: Saving transaction data to the database table.
[04/24/XXXX 4:38 AM] - SUCCESS: Transaction data saved.
[04/24/XXXX 4:38 AM] - SUCCESS: Paypal class finished.
```

Logs And SQL Transaction



AI / LLM Decision Black Box



Short List Of
MCP Shortfalls
<https://bit.ly/4313EQJ>

What's The Difference?



LangChain

vs



LangGraph

Imagine You're Forced To Use AI Agent or Agentic System And It Said This To You?

Transparency And Trust

Video Attribution

<https://www.youtube.com/watch?v=jooeEZzVJGE>



We All Know What Happened...



Demo: Semantic Search Fail

<https://youtu.be/DR4zM2RF7A0>

All Facts (Or Data) Is Flat



OpenAI to Acquire Windsurf for \$3 Billion to Dominate AI Coding Space

CYPHER25 | SEP 17-19 INDIA'S BIGGEST AI SUMMIT AND EXPO KTPC @ WHITEFIELD BENGALURU



- Deal Collapse Details
- Google DeepMind Talent Acquisition
- Windsurf's Independent Future
- Strategic Industry Implications

Cognition Offers Buyouts to Newly Acquired Windsurf Staff



Don't Think About Elephants...

ChatGPT 4 > edit

D You
Create a picture of an empty room with no elephant in it. Absolutely no elephant anywhere in the room.

ChatGPT



I've created another image of an empty room with no elephant in it. If there's anything more you need, feel free to ask!



WWSD?

Resources

Resources

All Materials (Slides, Code, etc):

github.com/davidvonthenen/2025-ai-forward

Podcast: [Need AI/ML Help? Be In An Episode!](#)

Data Associations, Knowledge Graphs:

Graph-based RAG

- github.com/davidvonthenen/graph-rag-guide

Document-based RAG

- github.com/davidvonthenen/document-rag-guide



Thank You!



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