

Client background

Dandi is an AI-native global workforce intelligence platform designed to solve the “last mile” problem in HR analytics. While organizations sit on mountains of people data, extracting actionable insights typically requires technical teams to manually crunch numbers across disparate systems.

Dandi structures and analyzes data across the full HR stack—processing billions of metrics daily—to answer complex workforce questions instantly. By leveraging a modern cloud-native architecture, they have positioned themselves as the “brain” of the HR function, delivering the kind of deep, cross functional insights that previously required teams of data scientists.

The problem



Time-to-Insight Latency: Critical questions typically takes weeks of manual data extraction and calculation by technical teams.



Failure of Standard AI: Competitor “Prompt-to-SQL” methods achieved only ~60% accuracy, failing on complex, multi-step metrics.



Data Silos: Disconnected systems (ATS, HRIS) made unified employee lifecycle analysis impossible without heavy engineering lift.

Additional Constraints

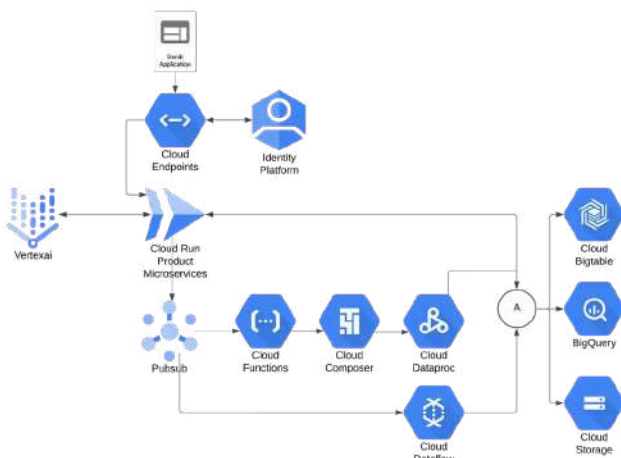
- **Strict Security & Privacy:** HR data is highly sensitive. The solution required enterprise-level, granular permissions (e.g., ensuring a manager only sees data for their direct reports), which the AI had to respect implicitly in every answer.
- **Zero-Tolerance for Hallucination:** Unlike creative AI use cases, HR decisions regarding compensation and diversity require 100% mathematical precision.
- **Scale:** The system had to pre-aggregate and query billions of data points in real-time, requiring an architecture far more robust than standard SQL databases.

What We Did

DISCOVERY & ARCHITECTURE

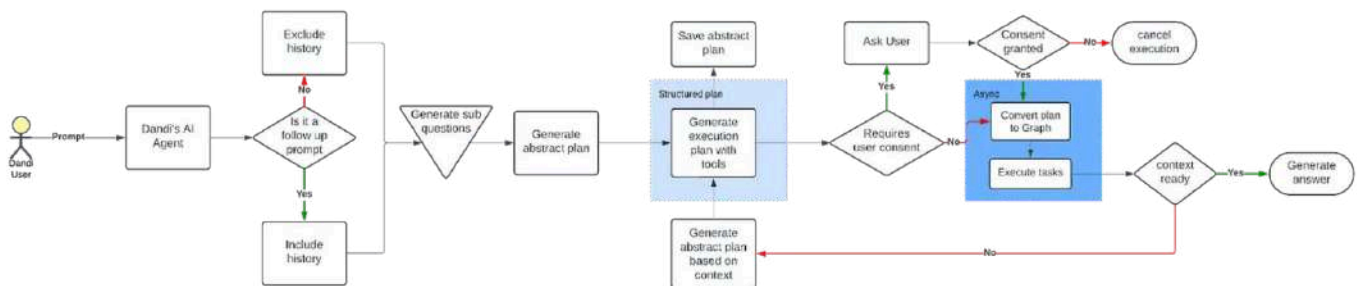
Rejected The Industry-Standard "Prompt-To-SQL" Approach Due To Low Reliability. Designed A Pre-Aggregation Architecture Using Google Cloud Platform (GCP).

- Pre-Aggregated Architecture: The Platform Utilizes Cloud Composer, Cloud Dataproc, And Cloud Bigtable To Pre-Aggregate Billions Of Metrics Upon Ingestion, Ensuring Any Data Question Is Answered Instantly.
- High-Accuracy Retrieval: This Method Shifts The LLM's Role From Complex, Multi-Step Calculation (As Required By Prompt-To-SQL Methods) To Maximum Two-Step Retrieval, Achieving A Benchmark Accuracy Of 98%.
- Competitive Edge: By Instantly Leveraging Pre-Calculated Data, Dandi AI Delivers Complex Trends, Forecasts, And Correlations That Competing Systems, Limited By Raw Data Processing, Find Too Challenging To Address.



AI MODELING & AGENT DEPLOYMENT

- Integrated Google Vertex AI And Gemini 1.5 Pro To Drive The "Dandi AI Analytics" Agent.
- Built A "Planner-Retriever" System: When A User Asks A Complex Question, The AI Breaks It Down Into Sub-Steps (E.G., Step 1: Get Hiring Data; Step 2: Get Retention Data; Step 3: Compare).
- Instead Of Writing SQL, The AI Acts As An Orchestrator, Selecting The Right "Tools" To Retrieve Pre-Verified Metrics From Bigtable. This Reduced The Mathematical Burden On The LLM, Shifting The Task From "Calculation" To "Retrieval And Synthesis".



SECURITY & STANDARDIZATION

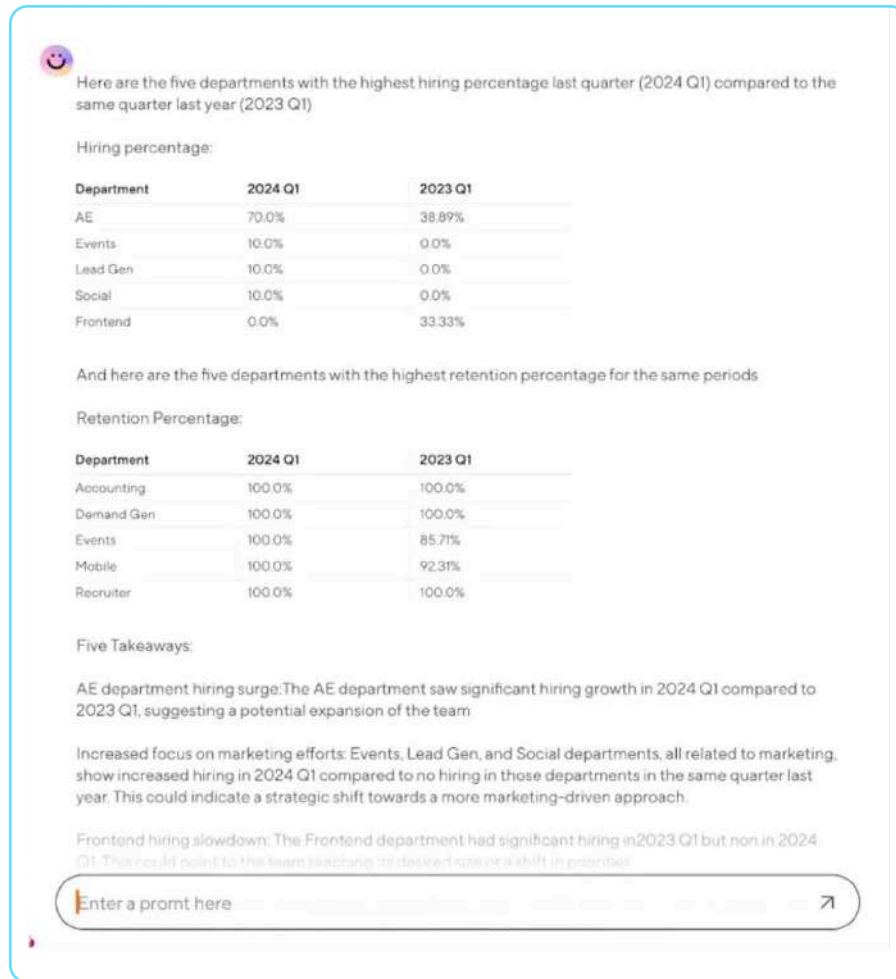
- Built A Custom Identity-Aware Middleware Using Google Identity Platform And Cloud Endpoints.
- Ensured That Every AI Query Is Filtered Through The User's Specific Role And Permissions Before Accessing The Database, Guaranteeing That No Unauthorized Data Is Ever Retrieved Or Summarized.

“ Work that used to take weeks now takes seconds. Dandi transforms unstructured HR data into accurate, actionable metrics that power the performance of the people team. ”

– CTO of Dandi

The Results

A Complex HR Query: “Which five departments had the highest hiring percentage last quarter vs the same quarter of last year? And what are the same results for retention percentage for the same segments? What are the 5 takeaways from the difference between the hiring and retention results?”



Here are the five departments with the highest hiring percentage last quarter (2024 Q1) compared to the same quarter last year (2023 Q1)

Hiring percentage:

Department	2024 Q1	2023 Q1
AE	70.0%	38.89%
Events	10.0%	0.0%
Lead Gen	10.0%	0.0%
Social	10.0%	0.0%
Frontend	0.0%	33.33%

And here are the five departments with the highest retention percentage for the same periods

Retention Percentage:

Department	2024 Q1	2023 Q1
Accounting	100.0%	100.0%
Demand Gen	100.0%	100.0%
Events	100.0%	85.71%
Mobile	100.0%	92.31%
Recruiter	100.0%	100.0%

Five Takeaways:

AE department hiring surge: The AE department saw significant hiring growth in 2024 Q1 compared to 2023 Q1, suggesting a potential expansion of the team.

Increased focus on marketing efforts: Events, Lead Gen, and Social departments, all related to marketing, show increased hiring in 2024 Q1 compared to no hiring in those departments in the same quarter last year. This could indicate a strategic shift towards a more marketing-driven approach.

Frontend hiring slowdown: The Frontend department had significant hiring in 2023 Q1 but none in 2024 Q1. This could point to the team reaching its desired size or a shift in priorities.

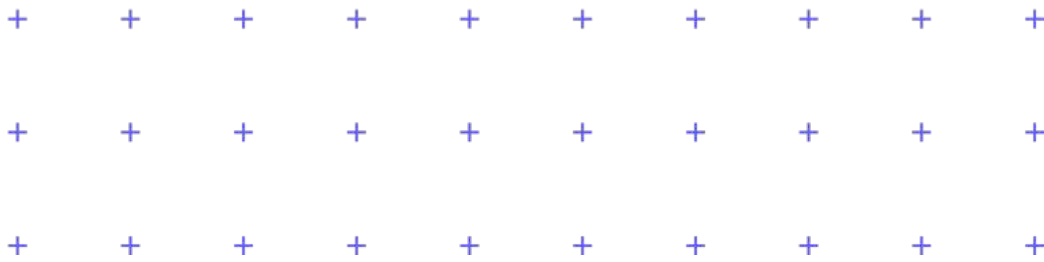
Enter a prompt here

Dandi AI understood that it didn’t need to calculate any percentages. It simply retrieved the data, sorted it and picked the top 5. Then it generated the 5 takeaways requested.

In most Prompt-to-SQL methods, the query has to be generated, the schema needs to be trained on, the model used needs to be able to generate an SQL plan, the planned query has to be executed against raw data, and then the last call will generate the takeaways (assuming the accuracy of the SQL query was sufficient enough to handle the prompt in the first place).

Contact Us

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The Impact

The potential impact of Dandi AI on HR business and operations is transformational, shifting the HR function from a slow, administrative cost center to a fast, strategic business partner.

By replacing weeks of manual data extraction and analysis with instant, 98% accurate AI-driven insights, Dandi enables evidence-based HR. This speed allows HR leaders to move from reacting to problems (like high turnover) to proactively managing the workforce and aligning HR activities with core strategic objectives.

Operations become far more efficient, as HR teams can streamline reporting, identify and eliminate pay gaps in real-time, and improve high-stakes functions like recruitment precision and employee retention. Ultimately, this leads to a reduction in time-to-hire, a decrease in turnover (up to 39% decrease), and an overall enhancement of organizational performance and productivity.



Companies We've Built



The Athletic



Wunderkind



Sealed



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Why XTAM



Proven Track Record

Multiple successful transformations and exits across SaaS, EdTech, enterprise software, and consumer tech.

Deep AI Expertise

10+ years deploying machine learning solutions—even before AI went mainstream—gives us an edge in knowing what works, what doesn't, and how to execute quickly.

End-To-End Approach

We combine strategic advisory, engineering execution, and product innovation under one roof—ensuring accountability, speed, and ROI.

Flexible Structures

We meet partners where they are—whether that means a straightforward consulting engagement or an equity-based deal for deeper, long-term collaboration.

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