# Sikka.ai Announces Benchmark Results for Vertical DentalLLM, Demonstrates Superior Performance to Popular Vanilla LLMs

Initial results from the Sikka.ai DentalLLM display the strength of de-identified dental data, paving the way for other companies building specialized LLMs.

SAN JOSE, CALIFORNIA, UNITED STATES, May 1, 2024 / EINPresswire.com/ -- Sikka.ai, a leader in innovative dental solutions, is excited to introduce DentalLLM, an open, specialized Large Language Model (LLM) created by Sikka.ai. Across a range of practice-specific and practice-independent benchmarks, the Sikka.ai DentalLLM sets a new standard for dental-specialized LLMs. In a benchmarking whitepaper that

Table 1 – answer accuracy for dental trend knowledge questions for DentalLLM compared to other vanilla LLMs

explains the methodology, the answer accuracy of the Sikka.ai DentalLLM exceeds GPT-4, Claude 3 Sonnet and Gemini 1.0. The whitepaper is based on 15+ years of de-identified data and is available upon request.
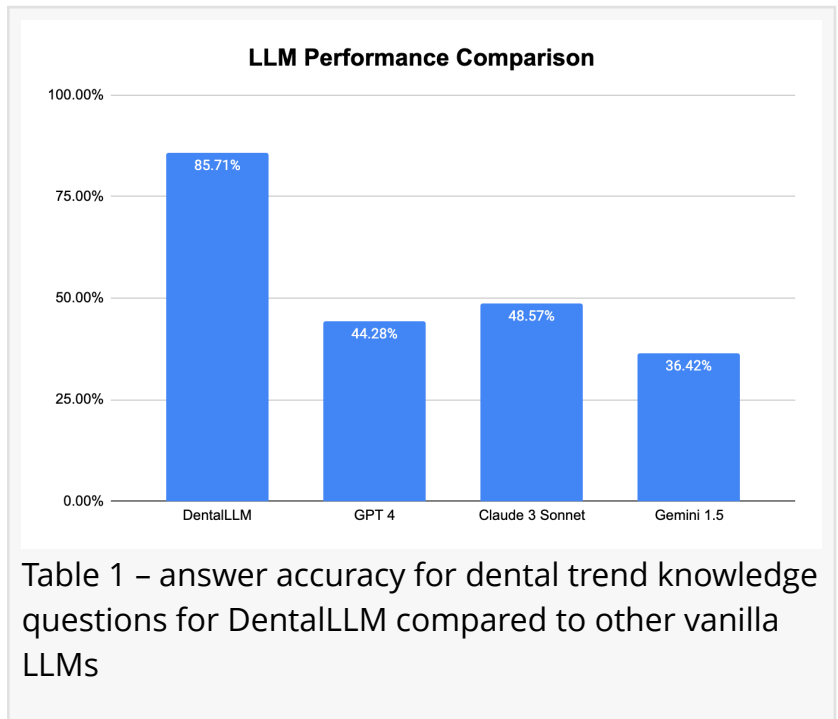
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The addition of the Sikka.ai DentalLLM extends our third-party app developers' capabilities significantly"
Founder & CEO, Vijay Sikka

Table 1 compares the answer accuracy among a list of dental trend knowledge questions. The results indicate that with the practice data on the Sikka.ai platform, the Sikka.ai DentalLLM surpasses ChatGPT-4, Gemini 1.0, and Claude 3 Sonnet in answering a list of dental trend knowledge questions.

Two key areas increase the Sikka.ai DentalLLM's ability, in comparison to vanilla LLMs, to provide data-driven value to dental professionals.

1. Practice-Specific Insights

Traditional data-comparison approaches depend on manual data entry or static datasets, often making it difficult and inefficient to make well-informed decisions. In contrast, the Sikka.ai DentalLLM using consent-based API can access practice-level data, which includes the following:
– Appointment scheduling
– Treatment plans
– Patient demographics
– Billing and insurance details
– Accounts Receivables
– Payments

sikka.ai's logo and brand image pay homage to its decades of experience at the forefront of artificial intelligence applications.

2. Practice-Independent Insights & Comparisons
With access to 30K+ dental practices across North America, the Sikka.ai platform also enables practice-independent rollups and summaries at the industry level with comparisons such as:
– Cost Comparisons: Compare practice fees with regional or national averages
– Competitive Analysis: Gain insights into fee structures of nearby practices
– Revenue Optimization: Identify opportunities to adjust fees based on data-driven insights
– Industry Trends: Spot emerging trends in popular procedures, and patient demands to stay ahead of the curve
– Accounts Receivable Data Insights: Leverage AR data to optimize billing, identify payment pattern insights, and improve revenue cycle management
– Payment Data Insights: Gain insights on different payment type structures and trends such as insurance-to-cash ratio, and credit card payments

These two key areas depend on the large corpus of dental data, encompassing 15+ years of practice-level data, that the Sikka.ai API platform can access. This dataset, de-identified to protect patient privacy, encapsulates longitudinal individual records, treatment histories, disease progression, outcomes, diagnostic insights, payments and evolving trends within the dental industry.

This gives the Sikka.ai DentalLLM the ability to answer questions about retail dental healthcare practices more precisely, allowing dental professionals to make informed clinical decisions with greater confidence (practice-specific). This key data, absent in vanilla LLMs, also empowers dental professionals to optimize a practice's financial performance and make strategic business optimization decisions (practice-independent).

How does Sikka.ai protect the privacy of practice data?
The Sikka.ai DentalLLM takes the synthetic de-identified consent-based practice data and generates a query for the user's questions. This query is executed on the practice's data inside

the Sikka.ai firewall in compliance with all privacy laws and regulations.

"Sikka.ai has been a pioneer in the over half-trillion-dollar retail healthcare industry by being the first optimizer and AI API platform. Our AI-API Platform is used by 50 application providers and large enterprises with a billion interactions a day. The addition of the Sikka.ai DentalLLM extends our third-party app developers' capabilities significantly beyond the already available AI indicators such as Next Major Procedure, Customer Life Time Value, Production Prediction, Health Risk Score, Economic Well Being Score and more," says Vijay Sikka, Founder & CEO of Sikka.ai.

The Sikka.ai DentalLLM and 15+ years of synthetic data will be available generally on July 1. Software developers can register to enter the waitlist now. Sikka's database, also available as a standalone offering, provides a foundation for other AI developers to develop and refine AI-driven solutions that can transform oral healthcare and patient outcomes. Now enterprises, dental app developers, manufacturers, and financial service providers don't have to use vanilla LLMs and can use the Sikka.ai DentalLLM instead. Alternatively, they can build their own LLMs using domain-specific 15+ years of Sikka.ai de-identified data.

About Sikka.ai
Sikka.ai is a leading artificial intelligence (AI) company providing solutions that empower dental, oral surgery, orthodontics, optometry, veterinary and chiropractic professionals to thrive in today's competitive healthcare landscape. Sikka.ai provides app developers tools to support these solutions with an award-winning AI-API platform that allows for seamless integration with more than 96% of the practice management software systems. Sikka.ai's consent-based insights are used by major financial institutions and the life insurance industry. The company is private equity funded, profitable and growing rapidly. The company has 41,000 practices and 140 million patients on its AI-API Platform.

Brian Wu
sikka.ai
press@sikka.ai
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