

Dnotitia Unveils the World's First Hardware-Accelerated Vector Database, Seahorse, at Super Computing 2024

SEOUL, SOUTH KOREA, November 19, 2024 /EINPresswire.com/ -- <u>Dnotitia</u>, Inc. (Dnotitia), an innovative AI driven startup that merges artificial intelligence (AI) with data to drive transformative value, is showcasing the world's first hardware-accelerated vector database, Seahorse, at the <u>Super Computing</u> 2024. The event is taking place at the Georgia World Congress Center, from November 17th to 22nd (exhibit date: 19th to 21st) in Atlanta, Georgia.

The vector database serves as a foundation technology for Retrieval-Augmented Generation (RAG), a cutting-edge AI service powered by Large Language Models (LLMs). Seahorse offers the essential information and long-term memory capabilities needed for LLMs to operate effectively, facilitating highperformance and high-quality semantic search across large-scale datasets. This vector database is specifically designed to efficiently perform similarity-based searches by converting multimodal data --- such as text, image, video, and



Dnotitia's booth at SC24

audio --- into high-dimensional vector formats. Leveraging this technology, Dnotitia's Seahorse provides semantic search capabilities that enables users to retrieve data in context, ensuring precise and relevant information. This advancement significantly enhances the performance of AI systems in terms of data retrieval and utilization.

Seahorse stands out with its integration of Dnotitia's world's first dedicated vector computationaccelerated chip, the Vector Data Processing Unit (VDPU), which delivers unprecedented advancements in database performance and accuracy. Key benefits of Seahorse include optimized semantic search, supports multimodal RAG, 10x faster search speeds, and an over 80% reduction in Total Cost of Ownership (TCO). These features significantly maximize efficiency in large-scale data processing, addressing the growing demands of increasing data volume and complexity.

"Seahorse represents groundbreaking technology that delivers precisely the information users seek, based on meaning and context", said MooKyoung (MK) Chung, CEO of Dnotitia. "Previously, users had to search with specific keywords and manually review each data point. Now, with Seahorse, they can locate necessary data using natural or even abstract language". He added, "This innovation will transform digital data access, ushering in an era where everyone can find accurate, relevant information more quickly and easily than ever before."

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