

# Navigating the Data Frontier

How HEAVY.AI is Revolutionizing Analytics with Vultr's Cutting-Edge NVIDIA GPU Infrastructure

In today's data-driven world, organizations must navigate increasingly complex data sets, requiring advanced analytics tools that deliver insights quickly and efficiently. HEAVY.AI, a revolutionary GPU-accelerated analytics platform, has emerged as a leader. By leveraging Vultr's cloud infrastructure, HEAVY.AI is pushing the boundaries of performance, cost efficiency, and scalability in data analytics.

## Pioneering data mastery: Transforming data sets into actionable insights

HEAVY.AI was founded to transform how organizations handle massive data sets. Their platform is designed to instantly query and visualize billions of records, including geospatial and time-series data. By enabling this rapid analysis, HEAVY.AI provides users with a complete view of their data, helping them understand the "what, when, and where" with unparalleled clarity.

HEAVY.AI's customers span various industries, including telecommunications, public sector, energy, utilities, oil and gas, automotive, insurance, pharmaceuticals, and logistics. Their end users – analysts, data scientists, data engineers, geospatial professionals, and executives – rely on HEAVY.AI to derive actionable insights from vast data.

## Elevating GPU power and performance to meet growing demands

When seeking a cloud provider, HEAVY.AI needed a partner that could offer robust GPU assets to meet the growing demands of their customers. As Jon Kondo, CEO of HEAVY.AI, explains, "We are thrilled to collaborate with Vultr and offer our customers the unmatched price-performance advantages that their infrastructure offers."

The company's platform, built to leverage the power of NVIDIA accelerated computing platforms, required a cloud infrastructure capable of supporting massive data loads and complex analytics tasks without sacrificing performance. The introduction of Vultr Cloud GPU, accelerated by NVIDIA, provided HEAVY.AI with the GPU and CPU power they needed, enabling seamless performance improvements at a lower cost.

## HEAVY.AI

### Industry

Analytics and AI

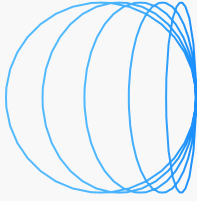
### For use cases in:

- Financial services
- Healthcare and life sciences
- Manufacturing and energy
- Media, entertainment and gaming
- Public sector
- Telecommunication

### About HEAVY.AI

HEAVY.AI is a revolutionary GPU-accelerated analytics platform that provides organizations with instant analytics on billions of records, including geospatial and time series data, for a complete view of what, when, and where.

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“We want to partner with and leverage Vultr to maximize the price-to-performance capabilities for use cases that benefit from large-scale GPU infrastructure.”

**Jon Kondo**, CEO of HEAVY.AI

## Maximizing performance with Vultr’s advanced GPU infrastructure

HEAVY.AI chose to harness Vultr’s advanced GPU infrastructure, specifically the NVIDIA GH200 Grace Hopper™ Superchip instances, to develop an Arm-based version of its software. This move optimized their platform’s performance and paved the way for hosting public demo instances on Vultr, showcasing its impressive scalability and performance.

HEAVY.AI leverages GH200 instances alongside NVIDIA A100 Tensor Core GPUs and Vultr Bare Metal instances, forming a powerful trio that drives their data and analytics stack. This combination allows HEAVY.AI to offer their customers high-performance analytics with unparalleled efficiency. The decision to partner with Vultr was driven by HEAVY.AI’s objective to maximize price-performance capabilities, particularly for use cases that demand large-scale GPU infrastructure.

Todd Mostak, CTO and Co-founder of HEAVY.AI, explains, “We are excited to strategically partner with Vultr to further expand access to our GPU-accelerated analytics platform. By leveraging Vultr’s large-scale GPU infrastructure, we can deliver the best performance at the best price to our customers for their most demanding use cases.”

## Integrated powerhouse: Enhancing analytics with cost-efficient, high-performance solutions

HEAVY.AI’s platform is an integrated data and analytics stack that provides all the necessary capabilities within a single container. They leverage NVIDIA GPUs with standard drivers and runtime containers, delivering high-performance analytics to customers. The platform’s HeavyIQ Conversational Analytics Text-to-SQL-to-Visualization capabilities offer a customer-managed local LLM model, which can be deployed on GPU-based infrastructure, further enhancing its performance and scalability.

One of the most significant advantages HEAVY.AI has gained from using Vultr is cost savings. As Mostak highlights, “Our application traditionally benefits from the maximum amount of GPU memory that can be deployed based on the size of the customer data and query style. With the NVIDIA GH200 Grace Hopper™ Superchip, we can achieve better performance than A100 GPUs for 30-40% less cost.”

This cost efficiency allows HEAVY.AI to provide their customers with robust analytics solutions at a fraction of the cost of traditional cloud providers.

“With the NVIDIA GH200 Grace Hopper™ Superchip, we can achieve better performance than A100 machines for 30-40% less cost.”

**Todd Mostak**, CTO and Co-founder of HEAVY.AI

## Achieving unmatched speed and efficiency with Vultr

The results HEAVY.AI has achieved with Vultr are impressive. In scenarios where data does not fit in GPU memory, HEAVY.AI has experienced 5x better price performance than the 8xA100 instance.

The NVIDIA Grace CPU and its high-performance Arm cores connected to the Hopper GPU over a fast NVLinkC2C enables data loads that are up to 2x faster, with NDS-H SF200 data being loaded 1.7x faster than on an 8xA100 instance (over 2x faster on the largest table). Real-world usage tests, such as analyzing over 17 billion AIS (Maritime Vessel Tracking) records on Heavy Immerse dashboards, have yielded fully interactive results, further validating the platform’s capabilities.

## Unlocking new frontiers in GPU-accelerated analytics with Vultr

HEAVY.AI's partnership with Vultr has unlocked new possibilities in GPU-accelerated analytics. By leveraging Vultr's cutting-edge infrastructure, HEAVY.AI delivers cost-effective, high-performance solutions that empower its customers to tackle the most demanding data challenges. As Mostak aptly puts it, "The synergy of NVIDIA GH200 Grace Hopper™ Superchip architecture with Vultr's widespread availability and unbeatable pricing unlocks an exciting new realm of cost-effective performance options for our customers."

## Analytics and AI applications across industries

In a world full of data, the ability to turn information into action is key for businesses to stay ahead. From optimizing operations to improving decision-making, HEAVY.AI and Vultr enable businesses across industries to solve complex problems quickly and cost-effectively.

### Financial services

In financial services, where precision and speed are critical, HEAVY.AI leverages Vultr's high-performance GPU infrastructure to deliver real-time insights that enhance decision-making and operational efficiency across the sector. Insurers can process vast datasets like telematics and IoT streams to enable instant risk assessments, detect fraud, and provide tailored services. In trading, HEAVY.AI analyzes billions of transactions and market signals in real-time, helping firms refine strategies and stay ahead of market changes.

### Healthcare and life sciences

HEAVY.AI, paired with Vultr's scalable cloud infrastructure, accelerated by NVIDIA, empowers healthcare organizations with real-time data visualization and analysis. In pharmaceuticals, it enables process analysts and data scientists to monitor drug development pipelines and clinical trials precisely. By efficiently managing large datasets, HEAVY.AI also supports critical areas such as public health initiatives, genomics, and medical research, driving faster insights and improved outcomes.

### Manufacturing and energy

HEAVY.AI, running on Vultr's cloud infrastructure, delivers powerful analytics for the manufacturing and energy industries. In logistics and transport, it enables

decision-makers to optimize routes, reduce costs, and improve supply chain efficiency through real-time spatiotemporal analytics. In the automotive sector, HEAVY.AI processes telematics data to help companies enhance safety features and identify new revenue opportunities. In energy, oil, and gas, it allows data scientists to analyze massive datasets for well planning, production optimization, and pipeline management, driving more efficient and reliable operations.

**Explore its capabilities in action: [View the demo of US Coastal Water Ship AIS Tracks](#) →**

### Telecommunications

Heavy AI leverages Vultr Cloud GPU, accelerated by NVIDIA, for tailored telecom solutions. For example, it enables telecom companies to optimize network performance, predict maintenance needs, and enhance service reliability with fast, interactive dashboards. HEAVY.AI improves customer satisfaction and supports more efficient service delivery by ensuring smooth network operations.

### Media, entertainment, and gaming

HEAVY.AI, integrated with Vultr Kubernetes Engine, empowers media planners, user acquisition managers, and advertising analysts to quickly analyze and visualize campaign performance. The platform helps identify trends, optimize user engagement strategies, and drive more effective advertising decisions by delivering real-time insights.

### Public sector

Government agencies rely on HEAVY.AI for lightning-fast data analytics, enabling effective decision-making in critical situations. From disaster response to urban planning, the platform processes geospatial data at scale, providing the insights needed to act quickly and confidently.

Get started with your own Vultr success story.

Contact us at [sales@vultr.com](mailto:sales@vultr.com) or visit [vultr.com/sales](https://vultr.com/sales).

