System Base Labs

A Carbon-Neutral Company

SBL

Today's AI Startup. Engineering the Intelligence of Tomorrow

Why Choose GPU Clusters?

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In the era of artificial intelligence, the performance and flexibility of compute infrastructure dictate the speed of innovation. GPU clusters have become the backbone of AI systems, enabling massive parallel processing and scalability for training and deploying complex models. This white paper breaks down what GPU clusters are, how we implement them at System Base Labs, and the advantages they provide.

Parallel Processing – Slashing Training Time

What is it?
GPU clusters leverage hundreds or thousands of cores per GPU to perform parallel computations.

How do we achieve it?
By deploying NVIDIA H100 Tensor Core GPUs across compute nodes, we orchestrate workloads using Kubernetes and optimized drivers.

Advantage:
Reduces training time for large models from weeks to mere hours, significantly accelerating time-to-market.

Scalable Across Edge, Cloud, and Hybrid Models

What is it?
GPU clusters can dynamically extend from centralized cloud data centers to edge devices.

How do we achieve it?
We integrate cloud APIs, edge inference units, and containerized microservices to build unified AI platforms.

Advantage:
Provides seamless AI capability across diverse environments with minimal latency or data loss.

Optimized for TensorFlow, PyTorch, and ONNX

What is it?
GPU clusters come pre-tuned for leading AI frameworks out of the box.

How do we achieve it?
We preload containerized environments optimized with CUDA, cuDNN, and ROCm backends.

Advantage:
Data scientists and ML engineers can start building instantly—no setup time required.

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Environmentally Conscious Deployment

What is it?
Eco-efficient GPU clusters designed to reduce environmental footprint.

How do we achieve it?
Our GPU clusters run inside solar, wind, and hydro-powered carbon-neutral data centers.

Advantage:
Delivers high-performance AI while upholding sustainability commitments.

Ultra-Low Latency Networking

What is it?
High-speed data transfer protocols like InfiniBand and 100Gb Ethernet.

How do we achieve it?
Every GPU node is interconnected with InfiniBand switches and high-throughput Ethernet fabrics.

Advantage:
Enables real-time inference, distributed model training, and near-zero lag system performance. GPU clusters aren't just about speed—they're about scaling intelligence sustainably and efficiently. At System Base Labs, we've architected every layer—from hardware to software—to unlock the true potential of AI.

🔍 What is Shankar AI?

Shankar AI is a next-generation Augmented AI Engineering platform designed to deliver human-centric intelligence, adaptive automation, and scalable decision systems across industries. Architected on System Base Labs' green compute infrastructure and integrated with OpenAI's advanced LLMs, Shankar AI bridges high-performance computing with interpretable AI.

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AI-First Technology

Ethical AI

GPU Farms

Shankar AI

Blockchain + Biomedical

Education