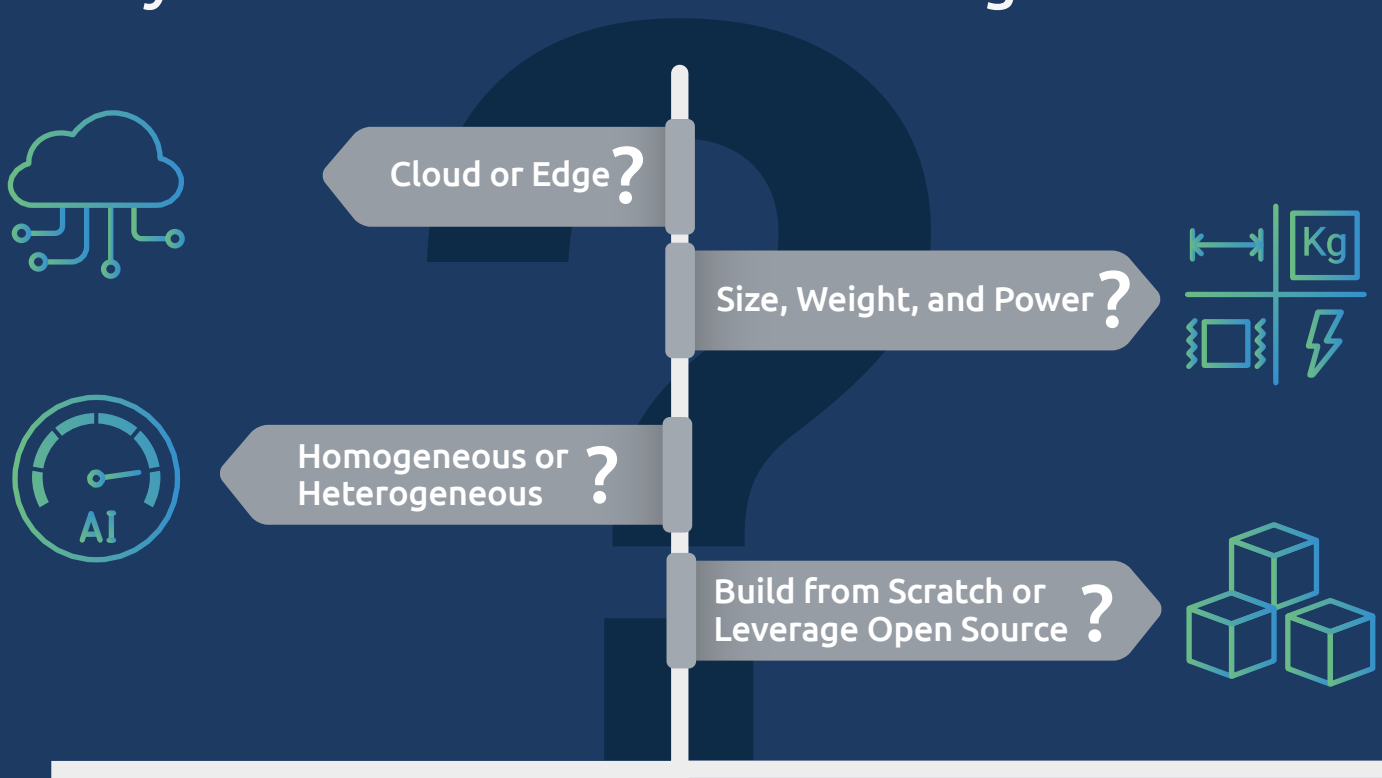
Streamline Your AI-Based Logistics Design

Quickly deploy AI in warehouse solutions using ADLINK's large portfolio of computing products and building blocks that support a wide range of form factors. Leverage ADLINK's extensive development environment to maximize performance and shorten time-to-market.

Key Facts to Know Before Getting Started



1 How can you speed up AI processing in your warehouse?

Fact

How edge AI works
Process AI workloads locally, thus eliminating the delay associated with sending vast amounts of data to the cloud for processing.

How cloud AI works
Warehouse data is first sent (over multiple networks) to the cloud, where AI algorithms run, and the results are sent back to the warehouse.

Solution

Since edge AI solutions do not need to send raw data to the cloud for processing, they typically deliver **faster response, enhanced security, improved mobility**, and **lower communications cost** than cloud-based AI.*



2 Did you know different AI workloads have different computing requirements?

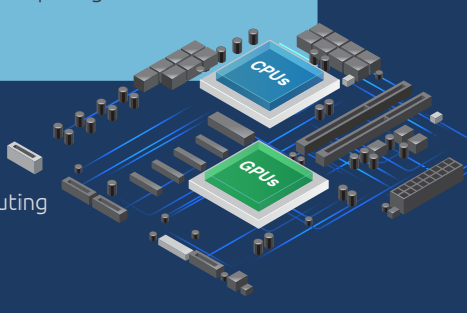
Fact

What heterogeneous computing is
Heterogeneous computing platforms include a mix of GPUs, vision processing units (VPUs), FPGAs, and ASICs that accelerate specific types of AI workloads.

What homogeneous computing is
Homogeneous computing platforms are based on a single computing architecture.

Solution

With heterogeneous computing, AI workloads run on the best-suited computing architecture, resulting in **faster computation** and **less power** consumed for a particular function, compared to a homogeneous platform.



3 Can AI solutions at the edge use the same computing platform as AI cloud-based solutions?

Fact

What operating environments look like at the edge
Platforms deployed at the edge may need to handle harsh operating environments (i.e., poor ventilation, no air conditioning, high temperature, or outdoor deployments) and meet stringent size, weight, and power consumption (SWaP) constraints.

What normal operating environments look like
Cloud AI typically runs in air-conditioned server rooms with relatively unlimited power and space.

Solution

When deploying AI on mobile devices in warehouse applications (e.g., forklifts, AMRs), it is important to use SWaP-optimized computing platforms in order to **extend battery life, withstand challenging environmental conditions,** and **simplify integration** in space-constrained systems.



4 Did you know building robotics and AI applications from scratch to solve warehouse challenges can be expensive and time-consuming?

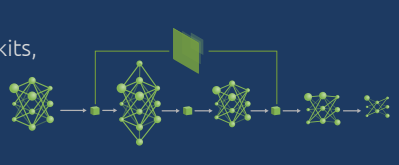
Fact

What open sources are available
Software development kits, AI algorithms, pre-trained AI models, and other open-source resources are available to developers to fine tune applications and speed up deployment.

What processes are required to build AI
AI-based applications require the development of various processes, including collecting and preparing data; choosing, training, and evaluating models; and tuning parameters; before deployment.*

Solution

By leveraging pre-trained AI models, ready-to-use software development kits, and open-source resources, developers can **save weeks**, if not months, of development time.



Contact ADLINK to learn more about developing AI-based logistics solutions

*. "Automating Warehouse Logistics with AI", https://go.adlinktech.com/SB_2107_WarehouseLogistics_LP_DL.html.

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