LatentAI

Same Device, More Mission

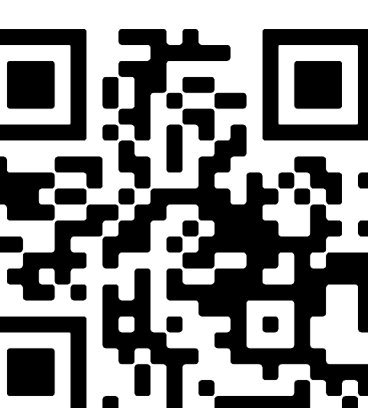Increased mission time with expanded scope and impact

Ultra-efficient edge models optimized for memory, power, and size

Move the model to the data, not the data to the model with low power AI/ML processing
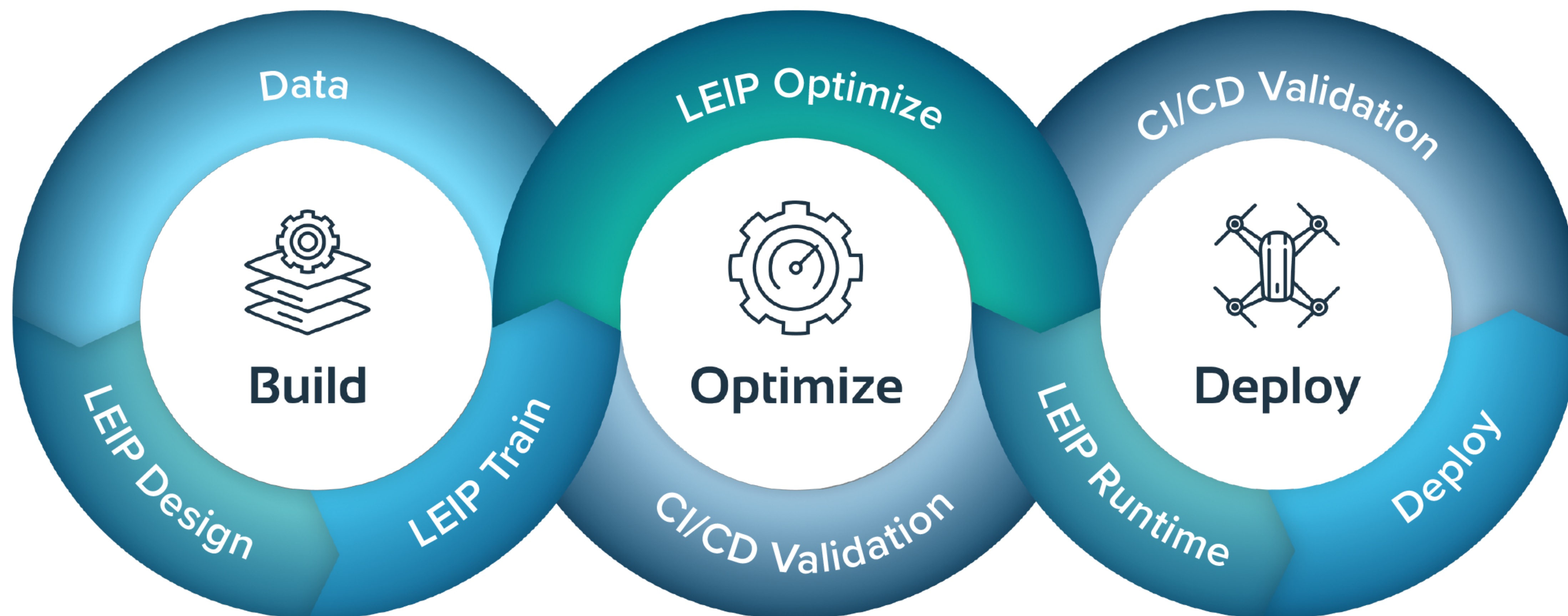
Scalable, repeatable, and reliable secure model deployment

Faster data to decision with increased tactical advantages

Contact **mlops@latentai.com** to schedule your evaluation today!

Latent AI Efficient Inference Platform (LEIP)

On-prem SDK for optimizing edge models, with seamless integration into IL2-6/JADC2

Data

LEIP Optimize

CI/CD Validation

Build

Optimize

Deploy

LEIP Design

LEIP Train

CI/CD Validation

LEIP Runtime

Deploy

Same Hardware, Better Results

- ➤ Increase edge inference by 66% and cloud inference by 48%
- ➤ 4x the capability on the same device

Rapid Model Prototyping

- ➤ Effortlessly target different hardware (CPU, GPU, etc.) without manual porting
- ➤ Build and run models without re-learning new tools

Extend Missions & Impact

- ➤ Lower power consumption on SWaP constrained hardware (2-6x speedups)
- ➤ Maximize limited bandwidth pipes and latency issues

Secure

- ➤ Build in security like watermarks and encryption
- ➤ Adapt and react to changing conditions

LAND

- Reduce false positives/negatives with AI/ML intelligence
- Provide feedback in contested environments
- Increase situational awareness with always-on sensors
- Upgrade models with new detection signatures

Example Missions:
- Base defense and perimeter security
- Hazardous material detection
- Exfiltration route monitoring
- Safe-house surveillance

SEA

- Update UUVs 18x faster while underway
- Support data fusing of onboard processing once re-connected
- Cover more area of responsibility with extended mission time and range
- Identify maritime threats faster and more precisely

Example Missions:
- Undersea inspection
- Mine detection
- Threat analysis and elimination
- Harbor surveillance
- Oceanographic analysis

AIR

- Fast processing to detect swarm/drones using multimodal sensor
- Extended flight time and power supply
- Faster detection and response of threats
- Better target acquisition and recognition

Example Missions:
- Counter drone
- Predator and loitering mode
- Threat elimination
- Reconnaissance and surveillance

SPACE

- Optimized models for limited upload bandwidth and line of sight communication restrictions
- Lower power consumption to extend battery life and mission
- Enable faster data to decision in complex environments
- Change-only model updates for uplink/downlink
- Provide better data faster

Example Missions:
- Identifying anti-collision maneuvers
- Missile launch detection
- Target identification
- Space debris tracking
- Onboard data collection and processing