# Dossier: LATENTAI INC.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,899,970.59

**Award Date:** 2024-09-02

**Branch:** ARMY

## AI-Generated Intelligence Summary

**Company Overview:**

Latent AI Inc. is a software company focused on enabling efficient and secure AI inference at the edge. They aim to solve the challenges of deploying and running complex AI models on resource-constrained devices, especially in scenarios where connectivity is limited or non-existent and latency is critical. Their core mission is to reduce the computational burden, power consumption, and memory footprint of AI models, allowing them to be deployed on edge devices like sensors, drones, and other embedded systems. Latent AI offers a comprehensive edge AI platform designed to optimize models for various hardware architectures and use cases, ultimately accelerating the adoption of AI in defense, aerospace, and other industries. Their unique value proposition lies in its ability to drastically compress AI models without significant performance degradation, ensuring real-time performance and data privacy at the edge.

**Technology Focus:**

* Latent AI Efficient Inference Platform (LEIP):\*\* A software platform that compresses and optimizes AI models for edge deployment. This includes pruning, quantization, and knowledge distillation techniques, resulting in a smaller model size, lower latency, and reduced power consumption. They claim LEIP can achieve up to 10x reduction in model size and 5x improvement in inference speed, while maintaining acceptable accuracy.
* Adaptive AI Engine:\*\* A runtime engine that dynamically adjusts model execution based on available resources and environmental conditions at the edge. This adaptive approach allows for resilient and performant AI inference even in fluctuating network or hardware environments.

**Recent Developments & Traction:**

* Partnership with Arm (2022-2023):\*\* Extensive collaboration with Arm to optimize LEIP for Arm-based processors, including support for Arm Ethos-U NPUs. This partnership significantly expands the reach of Latent AI's technology across a wide range of edge devices.
* Department of Defense Contracts:\*\* Latent AI has secured multiple contracts with the US Department of Defense (DoD) for various edge AI applications, including predictive maintenance, autonomous navigation, and threat detection. Specific contract details (amounts, programs) are often proprietary.
* Series A Funding (2020):\*\* Raised a Series A funding round to accelerate product development and expand its customer base. Details on the exact amount and lead investors are not publicly disclosed on major financial press releases, suggesting it was not a significant round.

**Leadership & Team:**

* Jags Kandasamy (Co-Founder & CEO):\*\* Experienced technology entrepreneur with a background in machine learning and embedded systems.
* Shiv Aggarwal (Co-Founder & CTO):\*\* Expertise in artificial intelligence, embedded systems, and computer vision.

**Competitive Landscape:**

* Neural Magic:\*\* Another company specializing in sparse neural networks and edge AI acceleration.
* Deeplite:\*\* Provides AI model optimization and deployment solutions, similar to Latent AI.

Latent AI differentiates itself through its end-to-end platform approach, offering both model optimization tools (LEIP) and a runtime engine that adapts to dynamic edge environments. This comprehensive solution provides a more integrated and streamlined experience for customers.

**Sources:**

1. [https://www.latentai.com/](https://www.latentai.com/) (Official Website)

2. [https://www.arm.com/solutions/artificial-intelligence/latentai-partner](https://www.arm.com/solutions/artificial-intelligence/latentai-partner) (Arm Partnership Information)

3. [https://www.crunchbase.com/organization/latentai](https://www.crunchbase.com/organization/latentai) (Crunchbase Profile)

4. [https://aimonks.com/wp-content/uploads/2022/11/Latentai-case-study-Final.pdf](https://aimonks.com/wp-content/uploads/2022/11/Latentai-case-study-Final.pdf) (Case Study)