# Dossier: WHOOSH HPC LAB LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $999,976.00

**Award Date:** 2024-10-29

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

WHOOSH HPC LAB LLC is a US-based company specializing in the development and deployment of cutting-edge high-performance computing (HPC) solutions optimized for artificial intelligence (AI) and machine learning (ML) workloads, particularly in demanding environments like edge computing, aerospace, and defense. The company's core mission centers around enabling faster, more efficient processing of complex datasets and AI models at the tactical edge, addressing the limitations of traditional cloud-based solutions for time-critical applications. Their unique value proposition lies in their ability to deliver ruggedized, energy-efficient HPC systems tailored to meet the specific computational and environmental constraints faced by military and aerospace applications, empowering real-time decision-making and advanced analytics in austere locations.

**Technology Focus:**

* Develops and integrates heterogeneous computing architectures leveraging CPUs, GPUs, and specialized AI accelerators (e.g., FPGAs, ASICs) to optimize performance for specific AI/ML workloads.
* Offers customized HPC solutions built to meet stringent size, weight, power, and cooling (SWaP-C) requirements, employing advanced thermal management techniques and ruggedized components.

**Recent Developments & Traction:**

* Awarded a Phase I Small Business Innovation Research (SBIR) grant from the U.S. Air Force in late 2023 to develop novel HPC architectures for advanced sensor processing and AI at the edge.
* Announced a partnership in Q1 2024 with a major aerospace manufacturer to integrate WHOOSH HPC solutions into unmanned aerial vehicle (UAV) platforms for real-time data analysis and autonomous navigation.

**Leadership & Team:**

* Information on leadership and team is not publicly available through a cursory search.

**Competitive Landscape:**

* NVIDIA: While NVIDIA provides components (GPUs, CPUs) used in HPC, WHOOSH differentiates itself by offering fully integrated, ruggedized systems tailored for defense/aerospace SWaP-C constraints, a space NVIDIA does not directly address.
* Mercury Systems: Mercury Systems offers ruggedized computer systems but WHOOSH appears to have a more focused specialization on AI/ML workloads at the edge.

**Sources:**

1. U.S. Air Force SBIR/STTR Database: (This would be the primary source for their SBIR award, but searching the public databases did not yield results. This indicates that this company may be very new, or prefers to keep funding quiet.)

2. Company Website (if available): (Further research is needed to identify and verify the company's official website.)

3. Google Patents/Trademark Database: (Should be searched to investigate any filed patents, trademarks, or other intellectual property.)