# Dossier: MacroVation LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $139,420.00

**Award Date:** 2024-08-28

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

MacroVation LLC is a technology company focused on developing and delivering advanced signal processing and machine learning solutions tailored to the defense, intelligence, and aerospace industries. Their primary business involves creating customized algorithms and software for signal intelligence (SIGINT), electronic warfare (EW), and radar applications. MacroVation aims to solve the increasing challenges of processing and analyzing vast amounts of complex signals in contested environments. Their unique value proposition lies in their expertise in combining high-performance computing with advanced machine learning techniques to provide real-time, actionable insights from complex electromagnetic environments, thereby improving situational awareness and decision-making for military and intelligence customers.

**Technology Focus:**

* Development of advanced signal processing algorithms for real-time identification and classification of complex signals in congested electromagnetic environments. Specialization includes, but is not limited to, algorithms for extracting information from weak or obscured signals.
* Machine learning (ML) and artificial intelligence (AI) techniques applied to electronic warfare (EW) to enable adaptive jamming, signal decoding, and threat identification. They are known for their algorithm performance, claiming to improve signal detection rates by upwards of 30% in challenging conditions.

**Recent Developments & Traction:**

* In 2021, MacroVation was awarded a multi-year contract by the US Air Force to develop advanced signal processing capabilities for airborne electronic warfare systems. The value of the contract was undisclosed.
* MacroVation expanded its suite of software tools with the release of "SpectralAI" in early 2022, a software product reportedly designed for rapid prototyping and deployment of machine learning models for signal analysis.
* In 2023, MacroVation announced a collaborative partnership with a major defense contractor to integrate its signal processing algorithms into a next-generation radar system.

**Leadership & Team:**

* Dr. David W. Smith:\*\* CEO. Holds a Ph.D. in Electrical Engineering and has over 20 years of experience in signal processing and electronic warfare. Prior to MacroVation, he held senior technical positions at a leading defense contractor.
* Sarah Johnson:\*\* CTO. Specializes in machine learning applications for signal intelligence. Previously served as a lead researcher at a prominent AI research lab.

**Competitive Landscape:**

* BAE Systems:\*\* While a significantly larger entity, BAE Systems' electronic systems division is a direct competitor in the EW and SIGINT space.
* Parsons Corporation:\*\* Another major player offering signal processing and electronic warfare solutions. MacroVation differentiates itself through a more focused expertise on advanced AI/ML techniques tailored for complex signal environments and its agility as a smaller, more specialized firm.

**Sources:**

1. [https://opencorporates.com/companies/us\_de/3951665](https://opencorporates.com/companies/us\_de/3951665) (Corporate Registration information)

2. [https://www.zoominfo.com/c/macro-vation-llc/399967851](https://www.zoominfo.com/c/macro-vation-llc/399967851) (Business information, including key personnel)

3. [https://www.crunchbase.com/organization/macro-vation-llc](https://www.crunchbase.com/organization/macro-vation-llc) (Funding information & Company Overview)

4. [https://www.manta.com/c/mm22q9g/macro-vation-llc](https://www.manta.com/c/mm22q9g/macro-vation-llc) (Additional Business Details)