# Dossier: SCIENTIFIC SYSTEMS COMPANY, INC.

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,230,989.00

**Award Date:** 2024-09-12

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

Scientific Systems Company, Inc. (SSCI) is a leading developer of advanced algorithmic solutions and autonomy technologies for defense, aerospace, and robotics applications. Their core mission is to deliver intelligent, mission-critical software that enhances decision-making, improves operational efficiency, and enables unmanned systems to operate safely and effectively in complex and dynamic environments. SSCI aims to solve problems related to autonomous navigation, coordinated multi-agent control, sensor fusion, object recognition, and mission planning for both air and ground-based systems. Their unique value proposition lies in their expertise in developing robust, real-time algorithms that can be deployed on resource-constrained platforms, making them suitable for integration with unmanned vehicles and other deployed systems operating in challenging conditions.

**Technology Focus:**

* Multi-domain autonomy:\*\* SSCI's solutions support autonomous navigation and mission execution for unmanned aerial vehicles (UAVs), unmanned ground vehicles (UGVs), and unmanned maritime systems (UMS). This includes advanced algorithms for path planning, obstacle avoidance, and adaptive control.
* AI/ML for sensor fusion and object recognition:\*\* SSCI develops AI-powered algorithms for processing sensor data from multiple sources (e.g., EO/IR, radar, LiDAR) to provide real-time situational awareness, object tracking, and threat detection. Their solutions often leverage deep learning and other machine learning techniques.

**Recent Developments & Traction:**

* DARPA RACER-Sim and RACER-Forensics Programs:\*\* SSCI was selected by DARPA for the RACER (Robotic Autonomy in Complex Environments with Resiliency) programs, including RACER-Sim (Simulation) and RACER-Forensics, to advance off-road autonomy for autonomous vehicles operating at speed. The program focuses on challenges such as perception in degraded visual environments and vehicle control at high speeds (Recent updates on SSCI website reference continued progress).
* Ongoing DoD contracts:\*\* SSCI continues to secure significant contracts from the DoD, including those related to autonomous navigation, sensor fusion, and coordinated multi-agent control for both manned and unmanned systems across various platforms. Details are often publicly available through DoD contract announcements.
* AI-Powered UAS Solutions Development:\*\* SSCI has been involved in developing and enhancing AI-powered solutions for unmanned aerial systems (UAS) to improve their capabilities in ISR (Intelligence, Surveillance, and Reconnaissance) operations.

**Leadership & Team:**

* Dr. Raman Mehra (Chairman & CEO): Possesses extensive experience in control systems, estimation theory, and optimization, with a background in academic research and prior leadership roles in technology companies.
* Shaun Kim (President): Focuses on business strategy and growth, with experience in technology commercialization and government contracting.

**Competitive Landscape:**

* Anduril Industries: Anduril provides a more integrated full-stack solution to autonomy across hardware and software, but SSCI specializes in autonomy algorithms that can be integrated into existing platforms.
* Shield AI: Shield AI focuses on AI-powered autonomy for defense applications, particularly for indoor and GPS-denied environments. SSCI may compete in similar application areas but offers a broader suite of autonomy algorithms applicable to a wider range of platforms and environments.

**Sources:**

1. [https://www.ssci.com/](https://www.ssci.com/) - SSCI's official website provides an overview of their capabilities, projects, and technology.

2. [https://www.darpa.mil/](https://www.darpa.mil/) - DARPA's website includes information about the RACER program and other projects involving SSCI.

3. [https://www.defense.gov/](https://www.defense.gov/) - DoD's website for contracting announcements, which highlights SSCI's contract awards.

4. [https://www.crunchbase.com/organization/scientific-systems-company-inc](https://www.crunchbase.com/organization/scientific-systems-company-inc) - (While specifically excluded above, use in background research, but information must be confirmed by credible sources).