# Dossier: TOYON RESEARCH CORPORATION

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,000,000.00

**Award Date:** 2024-10-09

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

Toyon Research Corporation is a technology solutions provider specializing in advanced signal processing, algorithm development, machine learning, and software engineering, primarily focused on defense and national security applications. Their mission is to develop and deliver innovative solutions that enhance situational awareness, improve decision-making, and provide asymmetric advantages for their customers, particularly within the Department of Defense (DoD). They address critical challenges in areas such as electronic warfare, autonomous systems, sensor fusion, and cyber security. Toyon's unique value proposition lies in its deep technical expertise, rapid prototyping capabilities, and a commitment to transitioning research into operational capabilities, often collaborating with government research labs and prime defense contractors.

**Technology Focus:**

* Advanced Signal Processing & Machine Learning:\*\* Toyon develops algorithms for signal detection, classification, and exploitation in complex and contested electromagnetic environments. They leverage machine learning techniques to improve the performance and adaptability of these algorithms, particularly in electronic warfare and ISR applications.
* Autonomous Systems & Robotics:\*\* Toyon develops software and algorithms for perception, navigation, and control of autonomous systems, including unmanned aerial vehicles (UAVs) and unmanned ground vehicles (UGVs). Their focus includes developing advanced perception algorithms, including LiDAR and computer vision applications.

**Recent Developments & Traction:**

* US Navy Contract (December 2022):\*\* Awarded a contract from the US Navy for the development of advanced electronic warfare signal processing techniques. This involved improving the speed and accuracy of signal identification in dense electromagnetic environments.
* Partnership with BAE Systems (Ongoing):\*\* Collaboration with BAE Systems on several classified research projects. Specific details are limited, but focus on next-generation electronic warfare and signal intelligence capabilities.
* Autonomous Vehicle Research (Ongoing):\*\* Actively researching and developing advanced autonomous vehicle technologies with the goal of applying them to defense use cases. This includes significant research on robotic swarms and collaborative robotic systems.

**Leadership & Team:**

* Dr. Timothy X Brown (President and CEO):\*\* Holds a PhD in Engineering and has extensive experience in signal processing and algorithm development. Has led Toyon through significant growth and expansion.
* [Further Leadership Information Limited due to privacy - Publicly accessible information only provides limited detail on leadership beyond the CEO.]\*\* The company website does not list the entire leadership team, suggesting a conscious effort to limit public information.

**Competitive Landscape:**

* Sierra Nevada Corporation:\*\* A large defense contractor that also develops electronic warfare and ISR solutions. Toyon differentiates itself by its smaller size, increased agility, and a specialization in advanced algorithm development rather than systems integration.
* Charles River Analytics:\*\* Similar to Toyon, Charles River Analytics focuses on research and development for the DoD. Toyon appears to have a stronger emphasis on electronic warfare and signal intelligence, while Charles River Analytics has a broader portfolio.

**Sources:**

* [https://toyon.com/](https://toyon.com/) (Official Company Website)
* [https://www.defense.gov/](https://www.defense.gov/) (US Department of Defense Website for contract announcements) (Searched for "Toyon Research Corporation" contract awards)
* [https://www.crunchbase.com/organization/toyon-research-corporation](https://www.crunchbase.com/organization/toyon-research-corporation) (Crunchbase Profile - Limited Information)