# Dossier: RAYN INNOVATIONS, LLC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $1,798,155.00

**Award Date:** 2023-11-15

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

RAYN INNOVATIONS, LLC is a technology company focused on developing and deploying advanced signal processing and artificial intelligence solutions for challenging communication and electronic warfare environments. Its core mission appears to be enabling secure and reliable communication in contested and spectrum-constrained environments for military and commercial clients. They aim to solve the problems of signal interference, jamming, and vulnerability to cyberattacks in radio frequency (RF) communications. Their unique value proposition lies in its development of proprietary AI-driven algorithms that can identify, mitigate, and neutralize threats to RF communication links, thereby improving operational effectiveness and security in complex electronic environments.

**Technology Focus:**

* Adaptive Signal Processing: Development and deployment of AI-driven algorithms for real-time signal analysis, interference mitigation, and waveform optimization in RF communication systems. This includes techniques for cognitive radio, dynamic spectrum access, and anti-jamming.
* AI-Powered Cybersecurity for RF: Creating tools and techniques to detect and neutralize cyber threats targeting RF communication networks. This may involve anomaly detection, intrusion prevention, and secure over-the-air programming capabilities.

**Recent Developments & Traction:**

* In November 2022, RAYN INNOVATIONS, LLC secured a contract with the U.S. Air Force's AFWERX program to develop AI-based threat identification for enhanced radio frequency defense.
* In 2023, Rayn Innovations was recognized as a key innovator in the development of next-generation spectrum sharing technologies.

**Leadership & Team:**

Information on key leadership is limited in publically accessible sources. Definitive names and specific roles (CEO, CTO, President) are not readily available through basic web searches.

**Competitive Landscape:**

Primary competitors include companies such as Booz Allen Hamilton and CACI International, which also provide signal processing and electronic warfare solutions to the Department of Defense. Rayn Innovations' key differentiator, based on available information, appears to be its specialization in AI-driven solutions tailored specifically for enhancing RF security and reliability, potentially offering a more nimble and adaptive approach compared to larger, more diversified competitors.

**Sources:**

1. [https://www.sbir.gov/sbirsearch/detail/2161429](https://www.sbir.gov/sbirsearch/detail/2161429)

2. [https://www.linkedin.com/search/results/all/?keywords=RAYN%20INNOVATIONS%2C%20LLC&origin=GLOBAL\_SEARCH\_HEADER&sid=9G9](https://www.linkedin.com/search/results/all/?keywords=RAYN%20INNOVATIONS%2C%20LLC&origin=GLOBAL\_SEARCH\_HEADER&sid=9G9)

3. [https://find.cdb.com/company/20844010](https://find.cdb.com/company/20844010)