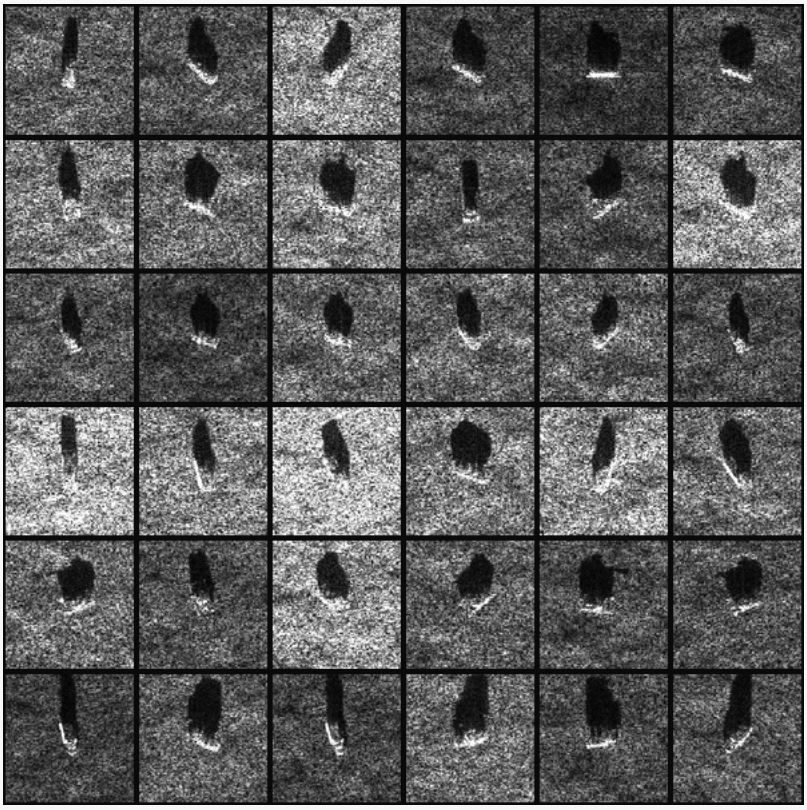
Lexset.ai Releases Synthetic SAR Data for Public Testing Based on MSTAR Dataset

Advanced synthetic data generation dataset developed through AFRL Phase II SBIR partnership now available to research community


Synthetic SAR Data

BROOKLYN, NY, UNITED STATES, September 15, 2026 / EINPresswire.com/ -- Lexset.ai, Inc. announces the public release of synthetic Synthetic Aperture Radar (SAR) data based on the MSTAR dataset for testing and research applications. This synthetic dataset was developed in collaboration with the Air Force Research Laboratory (AFRL) as part of a Small Business Innovation Research (SBIR) Phase II contract focused on synthetic data generation technology to address the most pressing challenges in the Department of the Air Force (DAF). The release marks a significant advancement in accessible training data for machine learning applications in radar imaging.

The Air Force Research Laboratory and AFWERX have partnered to streamline the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) process by accelerating the small business experience through faster proposal to award timelines, changing the pool of potential applicants by expanding opportunities to small business and eliminating bureaucratic overhead by continually implementing process improvement changes in contract execution. The DAF began offering the Open Topic SBIR/STTR program in 2018 which expanded the range of innovations the DAF funded, and Lexset.ai is creating and providing innovative capabilities that will strengthen the national defense of the United States of America.

The synthetic MSTAR dataset is now available for public download and testing at https://www.kaggle.com/datasets/lexset/mstar-synthetic/data.

> We built Lexset because we experienced firsthand how difficult it is to find high-quality training data for specialized computer vision applications”
>
> *Francis Bitonti, CEO of Lexset.ai*

“We built Lexset because we experienced firsthand how difficult it is to find high-quality training data for specialized computer vision applications," said Francis Bitonti, CEO of Lexset.ai. "The dataset and techniques developed under this program are a huge step toward addressing that challenge—providing researchers and developers with accessible SAR data they can use to advance their work. We're grateful for AFRL's partnership in making this possible and excited to share it with the community.”

(Mandatory disclaimer) The views expressed are those of the author and do not necessarily reflect the official policy or position of the Department of the Air Force, the Department of Defense, or the U.S. government.

About Lexset.ai, Inc.

Founded by a team of generative design, AI, and data experts, Lexset builds world-class visual data and Computer Vision AI systems for government and industry. With locations in Brooklyn, NY, and Gig Harbor, WA, Lexset serves leading commercial and defense customers with complex simulation and AI sensor analytics products.

Lexset's flagship platform, Seahaven, generates synthetic data for tactical ISR, space domain, and industrial applications. The company combines traditional simulation with generative AI and digital twin structures to create true domain randomization—producing superior training data for CV models. This approach has enabled integration of defense-relevant sensors including thermal, RADAR, SONAR, SAR, and LIDAR across the company's product line.
Building on this expertise, Lexset developed Sentinel—an autonomous vision intelligence system for communications-denied environments. Sentinel fuses multi-sensor feeds into explainable threat assessments in near real-time, enabling rapid, defensible decisions without network dependency across defense, search and rescue, and critical infrastructure operations.

About Air Force Research Laboratory (AFRL)

The Air Force Research Laboratory is the primary scientific research and development center for the Department of the Air Force. AFRL plays an integral role in leading the discovery, development, and integration of affordable warfighting technologies for our air, space and cyberspace force. With a workforce of more than 12,500 across nine technology areas and 40 other operations across the globe, AFRL provides a diverse portfolio of science and technology ranging from fundamental to advanced research and technology development. For more information, visit www.afresearchlab.com.

About AFWERX

As the innovation arm of the DAF and a directorate within the Air Force Research Laboratory, AFWERX brings cutting-edge American ingenuity from small businesses and start-ups to address the most pressing challenges of the DAF. AFWERX employs approximately 325 military, civilian and contractor personnel at six hubs and sites executing an annual $1.4 billion budget. Since 2019, AFWERX has executed 4,697 contracts worth more than $2.6 billion to strengthen the U.S. defense industrial base and drive faster technology transition to operational capability. For more information, visit: www.afwerx.com.

Lexset
Lexset AI
info@lexset.ai
Visit us on social media:
LinkedIn
X

This press release can be viewed online at: https://www.einpresswire.com/article/942257146

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.
© 1995-2026 Newsmatics Inc. All Right Reserved.