Big Science Business Forum 2024

TRIESTE
1 – 4 OCTOBER 2024

Host Organizers

REGIONE AUTONOMA FRIULI VENEZIA GIULIA · ILO Network Italia, Rete Industrial Liaison Officers · AREA SCIENCE PARK · IO SONO FRIULI VENEZIA GIULIA

PROTOSTAR LABS

Technology Transfer Track Posters

Edge AI: from FPGAs to Multispectral Imaging

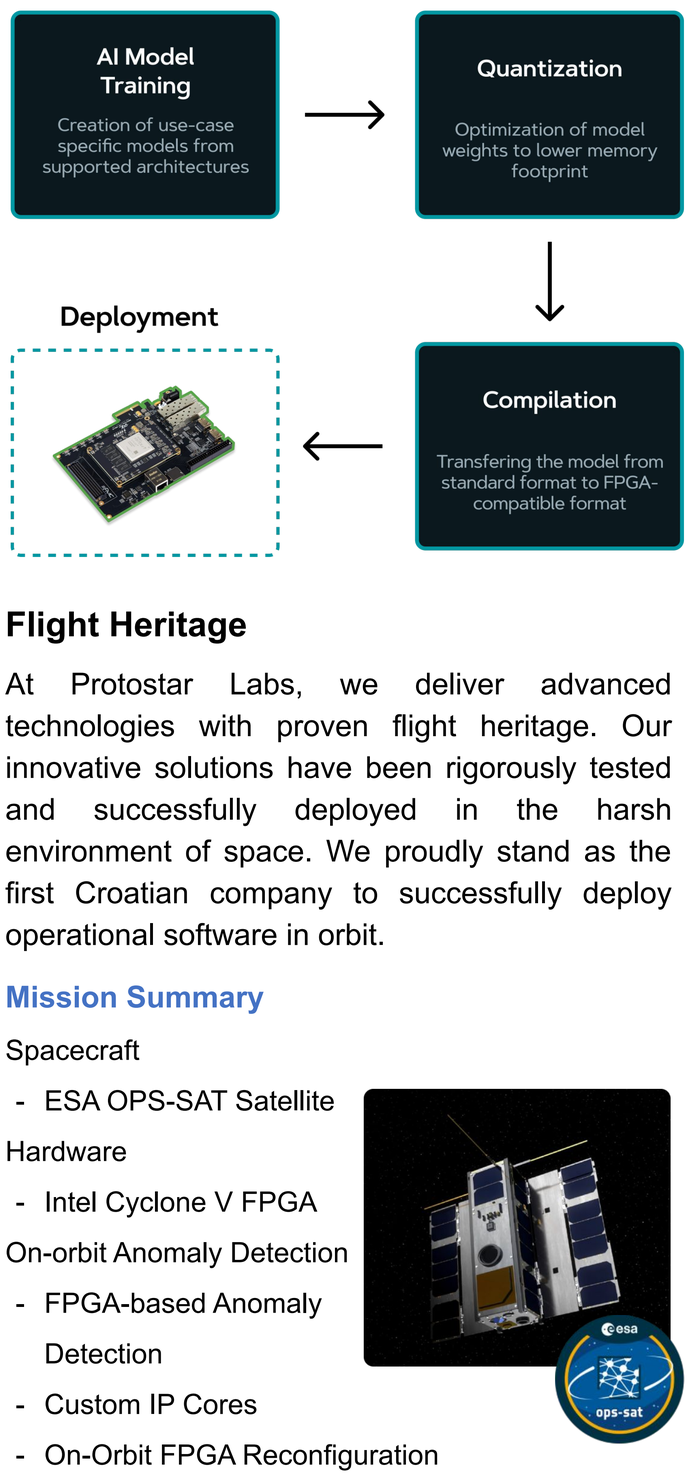
CoreNet Technology

Advanced Imaging meets Edge AI

Featured Product

CoreNet

CoreNet is a product that enables users to deploy AI models to FPGAs by utilizing a streamlined pipeline from model quantization to inference on FPGAs. The pipeline offers a no-code configuration of selected AI models and automatic deployment to selected FPGA boards.



Flight Heritage

At Protostar Labs, we deliver advanced technologies with proven flight heritage. Our innovative solutions have been rigorously tested and successfully deployed in the harsh environment of space. We proudly stand as the first Croatian company to successfully deploy operational software in orbit.

Mission Summary

Spacecraft

- ESA OPS-SAT Satellite

Hardware

- Intel Cyclone V FPGA

On-orbit Anomaly Detection

- FPGA-based Anomaly Detection
- Custom IP Cores
- On-Orbit FPGA Reconfiguration
- Real-time Telemetry Analysis

About Us

2019	40+	18	3
Founded	Projects	Employees	ESA Contracts

An interdisciplinary team of engineers and scientists with expertise in computer vision, machine learning, physics, software engineering, and electronics.

Our Expertise

Computer Vision

Sophisticated computer vision solutions for diverse applications, leveraging advanced machine learning for accurate object detection, tracking, and recognition. Our systems already inspected millions of products, ensuring top-notch quality and reliability.

Synthetic Data

Synthetic datasets for real-world scenarios to train machine learning models, improving algorithm robustness, enhancing accuracy, and mitigating model biases.

Signal Processing

Scalable and efficient signal processing systems for real-time high-volume data streams.

Advanced Data Analysis

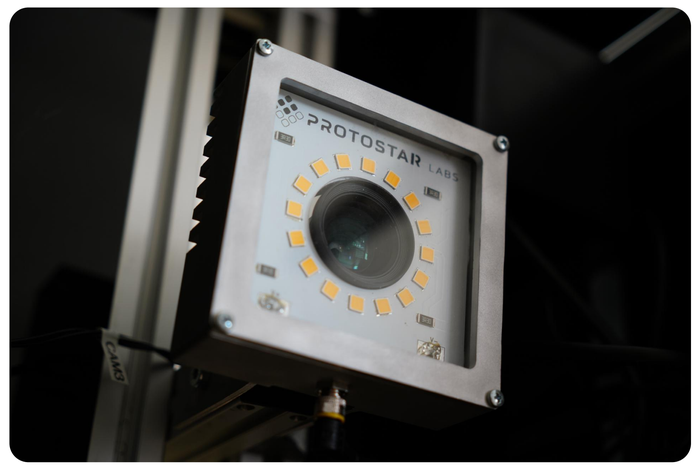
Unlock the full potential of your data and reveal critical insights, detect anomalies and causal relationships. Shorten time-to-market for your product or solution, while staying focused on your core business.

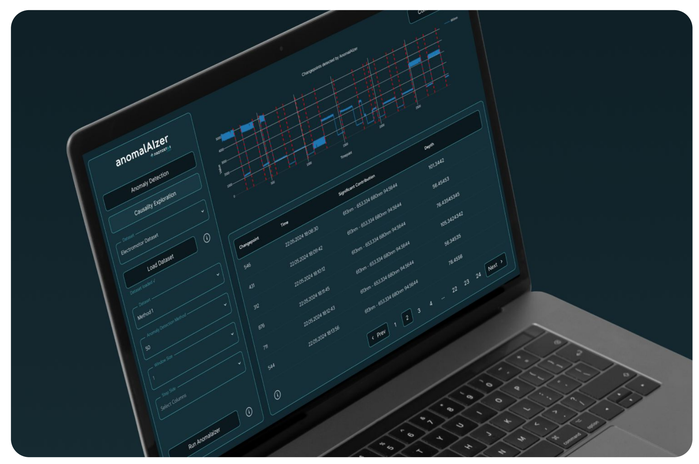
Multispectral Imaging

Imaging beyond the visible spectrum, from UV to SWIR, providing insights into material composition and environmental monitoring.

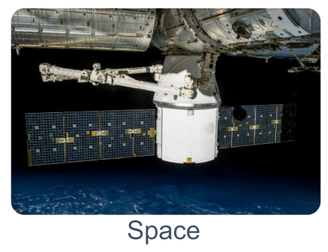
Success stories

ESA	FPGA-powered anomaly detection on ESA OPS-SAT satellite
Bexorg	Raman spectra analysis, anomaly and causality inference in multivariate data streams
Vindija	AI-powered visual inspection and decision making on production lines
FER	Software/hardware development for cubesat payload for Light Pollution Characterization Module
Univ. of New Mexico	Vision-based on-orbit inspection and servicing of satellite solar panels





Industries


Space


Science


Astronomy


Biotech

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BOOTH n. / HALL 28 - 27

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