Blackshark SYNTH3D™





The Geospatial Metaverse foundation built from generative AI puts the whole world in your hands

Blackshark.ai is the company behind the 3D reconstruction of the whole planet seen in Microsoft's award-winning Flight Simulator 2020. We apply our Al/ML detection and generative algorithms to satellite data and deliver a photorealistic, highly performant vector graphics reconstruction of the whole planet in 3D. It is served from Microsoft Azure and can be consumed in Unreal Engine, NVIDIA Omniverse and in a variety of 3D file formats.



Built for high performance simulation, training and visualization, it helps companies and governments tackle the world's toughest problems

Blackshark's SYNTH3D powers some of the world's most demanding simulation environments, used across flight simulation, mission planning, autonomous vehicles and drone sensor simulation, digital twin visualization, smart cities, urban management, clean energy deployment, emergency preparedness, and many more use cases.

Full semantic data in every pixel

Starting from satellite and aerial imagery, SYNTH3D™ is built by first using our platform and Al/ML algorithms to identify objects on the surface of the planet, which are then reconstructed in 3D using our patented generative Al – and behind every pixel, we can expose via our Unreal Engine plugin or our C++ SDK the semantic metadata of every pixel.

What will you build with it?

Leverage our C++ SDK or popular rendering and simulation platforms like Unreal Engine or NVIDA Omniverse.





Be future-ready

Continuous innovation from Microsoft supports your development today, and your product visions for tomorrow. With 1,000+ new capabilities in the past year, you can build on the latest advancements in AI, blockchain, Kubernetes, containers, and databases to keep you ahead of the curve.

Our enterprise grade analytics solution outperforms the competition, costs less, and is fully compatible with your existing development, BI, and data-science tools.

Operate hybrid seamlessly

On-premises, in the cloud, and at the edge—we'll meet you where you are. Integrate and manage your environments with tools and services designed for hybrid cloud.

Enhance security, simplify access, and set smart policies across your different environments with a single-identity platform trusted by 90% of enterprises globally.

Build on your terms

You have choices. With a commitment to open source and support for all languages and frameworks, build and deploy how you want to. Take advantage of the full-featured, integrated development environments with built-in support Visual Studio and Visual Studio Code, the most popular IDEs trusted by 15M+ developers.

We embrace open source, drive innovation through collaboration, and contribute back to the community.

Trust your cloud

Get security from the ground up, backed by a team of experts, and proactive compliance trusted by enterprises, governments, and startups.

With a \$1B+ investment in security R&D and 3,500 cybersecurity experts, security is foundational for Azure.



Microsoft Azure is an ever-expanding set of cloud computing services to help your organization meet its business challenges. With Azure, your business or organization has the freedom to build, manage, and deploy applications on a massive, global network using your preferred tools and frameworks.

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