Lenovo AI Computer Vision

Automated Retinal Analysis for Faster Eye Disease Identification

Smarter technology for all

Lenovo

Scalable, Intelligent Ophthalmic Screening with Bikal – VueXG
A validated use case within the Lenovo AI Library

Healthcare systems worldwide are facing rising patient volumes, limited access to ophthalmologists, and growing pressure to detect chronic eye diseases earlier. Yet many organizations still rely on manual screening processes that are time-intensive, specialist-dependent, and difficult to scale.

Lenovo AI Computer Vision powered by Bikal – VueXG addresses this gap by using advanced deep learning to analyze retinal fundus images in real time. Deployed on Lenovo infrastructure and optimized for secure, scalable environments, this solution enables early detection of Diabetic Retinopathy and Glaucoma — reducing diagnostic delays and expanding access to preventive care.

Lenovo AI Computer Vision (Bikal – VueXG)

Many healthcare providers already capture retinal images. But without intelligent analysis, these images require specialist review — slowing diagnosis and limiting scale.

Lenovo AI Computer Vision transforms ophthalmic screening into an AI-assisted diagnostic workflow. By automating image analysis and classification, organizations can accelerate early detection, reduce specialist dependency, and extend screening programs across hospitals, clinics, public health systems, and enterprise health programs.

What Lenovo AI Computer Vision Delivers

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Solution Capabilities

- AI-powered Diabetic Retinopathy detection
- AI-powered Glaucoma detection
- Real-time retinal image analysis
- Web-based and mobile-accessible platform
- Secure user authentication and patient record management
- Integration with Lenovo validated hardware
- Data sovereignty with on-prem deployment
- Scalable architecture for multi-site screening programs

Organizations move from reactive monitoring to proactive, AI-driven decision-making

Delivering AI Where It Matters Most

By enabling automated retinal screening across healthcare ecosystems, Lenovo AI Computer Vision expands access to preventive care and reduces long-term treatment costs.

Hospitals & Clinics

Improve screening efficiency and reduce specialist overload.

- Faster patient assessments
- Lower staffing dependency
- Increased patient throughput
- AI-assisted initial diagnosis
- Centralized dashboard for tracking and audits

Public Health & Government Health Programs

Expand preventive screening across broad populations.

- Early disease detection in rural and underserved areas
- No on-site specialist required
- Scalable mass-screening capabilities
- Integration with telemedicine platforms
- Reduced long-term blindness burden

Corporate & University Health Programs

Deliver preventive screening as part of workforce wellness initiatives.

- On-site or mobile screening programs
- Early intervention to reduce health claims
- Increased employee health access
- Reduced reliance on in-person specialist visits
- Scalable multi-location deployment

Delivered End-to-End by Lenovo

Lenovo AI Computer Vision (Bikal – VueXG) is more than a software platform. It is a fully integrated solution combining Lenovo infrastructure, NVIDIA AI Enterprise optimization, and Bikal's deep learning models — delivered with professional and managed services.

Designed for secure healthcare environments and built on Lenovo Validated Designs, this use case enables rapid deployment, operational scalability, and data sovereignty through on-prem infrastructure.

Backed end-to-end by Lenovo and powered by Bikal – VueXG, the solution can be delivered through scalable, modular services and flexible financing options with Lenovo TruScale.

Business Impact

Organizations can achieve:

- Earlier diagnosis of Diabetic Retinopathy and Glaucoma
- Reduced screening and operational costs
- Faster patient throughput
- Expanded access in rural and underserved regions
- Improved preventive care outcomes
- Reduced long-term vision-loss claims and treatment burden
- Increased workforce productivity through preventive health programs

From pilot screening programs to nationwide deployments — without integration complexity.

From AI Ambition to Measurable Results

The Lenovo AI Library accelerates enterprise AI adoption by providing validated, production-ready use cases and AI agents designed to drive productivity, agility and innovation.

These real, repeatable solutions are ready to be customized and scaled helping organizations move from experimentation to ROI faster.

Every AI Library solution is:

- Proven at scale
- Secure and governed by design
- Built for hybrid environments
- Engineered for measurable business outcomes

No pilots that stall.

No fragmented integration.

Just AI built for real-world deployment.

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Why Lenovo

AI success isn't just about technology — it's about the right partner. Backed by the **Lenovo Hybrid AI Advantage™**, we turn experimentation into measurable impact through our end-to-end advisory, implementation, and managed services. Across mobile and personal devices, enterprise systems, and cloud and gigafactory environments, our validated solutions cut complexity, accelerate business outcomes, and scale AI responsibly — with security, compliance, and governance built in at every stage.

Learn more

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