

Computer Vision AI Tools and Technologies

IDC's *Computer Vision AI Tools and Technologies* program tracks the software tools, technologies, and ecosystem trends that are impacting the growth of predictive and generative AI (GenAI)-based computer vision (CV) solutions. IDC's analysis includes understanding all aspects of the CV software life cycle, including identifying how, where, and why technology buyers plan to utilize CV to derive actionable intelligence from images, videos, and geospatial and sensor data sources. The *Computer Vision AI Tools and Technologies* program also encompasses IDC's research and perspective in the markets of document understanding artificial intelligence (AI), intelligent document processing (IDP), and video surveillance.

Technology buyers and suppliers indicate a strong desire to invest and scale AI across all aspects of their businesses, and this program looks to encapsulate the role of CV within this transformation. Although CV remains a fragmented, emerging technology growth area, its potential material impact on technology buyer and supplier businesses has accelerated its development and maturation timeline.

MARKETS AND SUBJECTS ANALYZED

- CV artificial intelligence software and platform solutions
- Advanced deep learning methods for computer vision
- Image modeling, including image formation, feature extraction, multiview geometry, and generative AI
- Low-level image processing methods such as filtering and edge detection
- Object detection, photogrammetry, 3D pose estimation, 3D rendering, and scene creation and understanding techniques
- CV AI software integration for robotics
- Synthetic data capability applications
- Document understanding AI and intelligent document processing
- Video surveillance software, hardware, and systems
- End-user requirements and challenges, governance, and deployment best practices
- Ecosystem evolution to support CV growth and advancement

CORE RESEARCH

- Worldwide Computer Vision AI Software Tools and Technologies Forecast, 2024–2028
- Worldwide Intelligent Document Processing Software Tools and Technologies Forecast, 2024–2028
- Worldwide Video Surveillance Analytics Forecast, 2024–2028
- Worldwide Computer Vision AI Software Tools and Technologies Market Shares, 2023
- Worldwide Intelligent Document Processing Software Tools and Technologies Market Shares, 2023
- Worldwide Video Surveillance Analytics Market Shares, 2023
- Market Analysis Perspective: Computer Vision AI Software Tools and Technologies, 2024
- Market Analysis Perspective: Intelligent Document Processing Software Tools and Technologies, 2024
- Market Analysis Perspective: Worldwide Video Surveillance and Vision Applications, 2024
- IDC FutureScape: Worldwide Artificial Intelligence and Automation 2025 Predictions
- IDC MarketScape: Worldwide Unstructured Intelligent Document Processing Software 2024 Vendor Assessment

In addition to the insight provided in this service, IDC may conduct research on specific topics or emerging market segments via research offerings that require additional IDC funding and client investment. To learn more about the analysts and published research, please visit: [Computer Vision AI Tools and Technologies](#).

KEY QUESTIONS ANSWERED

1. What are the trends, opportunities, and market size for CV? How does GenAI impact this growth?
2. How will CV AI change the business process optimization landscape?
3. How will CV augment and enrich knowledge and creative processes and outputs?
4. How are vendors differentiating their CV offerings?
5. How does the expansion of edge and cloud infrastructure impact AI deployment footprints and architectures?
6. How are vendors evolving to deploy document AI? How do LLMs and GenAI factor into this evolution?
7. What is the role of AI and analytics in delivering video surveillance growth?

COMPANIES ANALYZED

This service reviews the strategies, market positioning, and future direction of several providers in the *Computer Vision AI Tools and Technologies* market, including:

ABBYY, Adobe, Alibaba Cloud, Algolux, alwaysAI, AMD, Antworks, AnyClip, AnyVision, Appian, Automation Anywhere, Avigilon Corp., AWS, Axis Communications AB, Baidu, BriefCam, C3.ai, Celaton Ltd., Chooch, Cisco Systems Inc., Clarifai, CloudSight, CloudWalk, Cogniac, Conviva, Cortica, Datagen, DeepVision AI, Deepomatic, Drishti, EdgeVerve Systems, Fractal.AI, Genentech Inc., Google, H2O.ai, Hitachi Vantara, Hive, Hyperscience, IBM, InData Labs, Intel, IronYun Inc., Kasco, Kofax, Marlabs, MathWorks, Matroid, Megvii, Meta, Microsoft, Mobius Labs, Motorola Solutions, Neurala, NVIDIA, Omniq, OpenAI, OpenText, Oracle, Orbital Insights, Parascript, Plainsight, Qualcomm, SAP, SAS, Scandit, SenseTime, Sighthound, Syte, Tencent, UiPath, Umbo CV, Uniphore, Unity, Unreal, ViSenze, and ZestyAI.