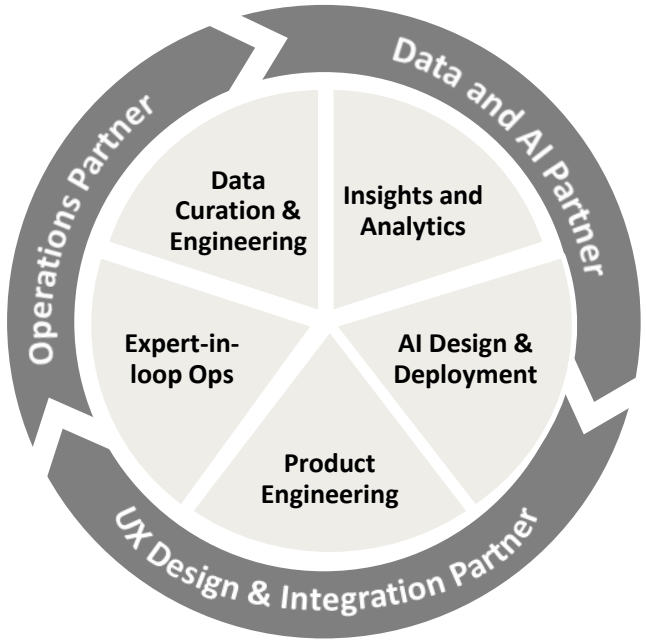
Straive

Computer Vision

Vision Analytics for Manufacturing & Logistics

Straive helps clients operationalize Data Analytics & AI spanning Discovery, Design, Development, Deployment and Delivery

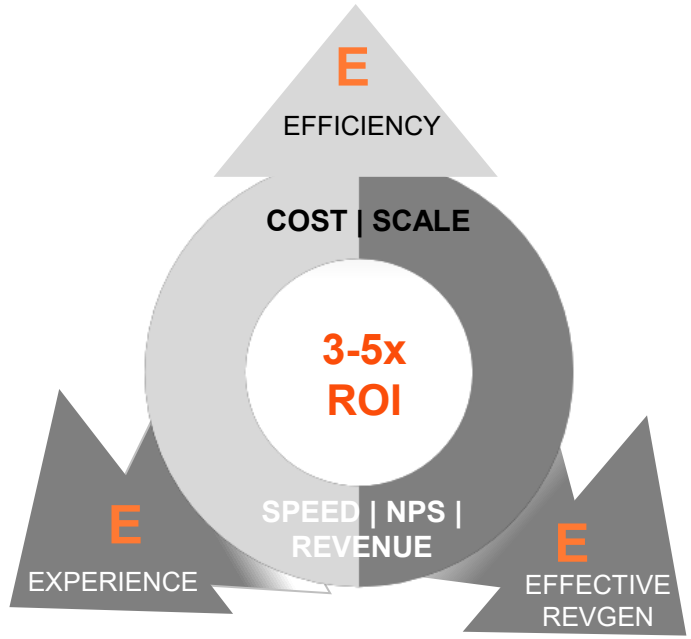
Three Capability Partners in one



Domain Specialist in Six Industries

- FINANCIAL & INFORMATION SERVICES
- PHARMA & LIFE SCIENCES
- SCIENCE & RESEARCH
- EDTECH
- RETAIL TECH & MEDIA
- SUPPLY CHAIN & MANUFACTURING

"Triple-E" Trifecta Impact



18K
Employees

1/3rd
Masters & PhDs

200+ Clients
30+ countries

Delivery across 5 continents

aws PARTNER

Microsoft Solutions Partner

databricks Select

EQT

Owned by Top 2 PE with $300Bn+ of AUM

We empower our clients with advanced data & analytics, providing comprehensive turn-key solutions tailored to meet specific industry needs.

1

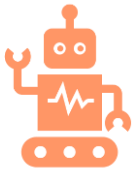
Data Collection & Storage

- Data collection from multiple sources
- Ensure collected data is accurate
- Utilize storage solutions like data lakes to store data

Ensure Precision

2

Data Processing & Pipeline Automation



- Data labelling for defect identification
- Noise Reduction
- Normalization
- Image Enhancement
- Set up automated pipelines to ingest data

Achieve Excellence

3

Artificial Intelligence & ML | Gen AI

- Develop AI & ML models tailored to specific use cases
- Feature Extraction
- Classification Algorithms
- Object Detection and Recognition

Maximize Productivity

Our expertise lies in leveraging AI and Gen AI-led computer vision technologies, designed to address object & action anomalies both on and off the production line.

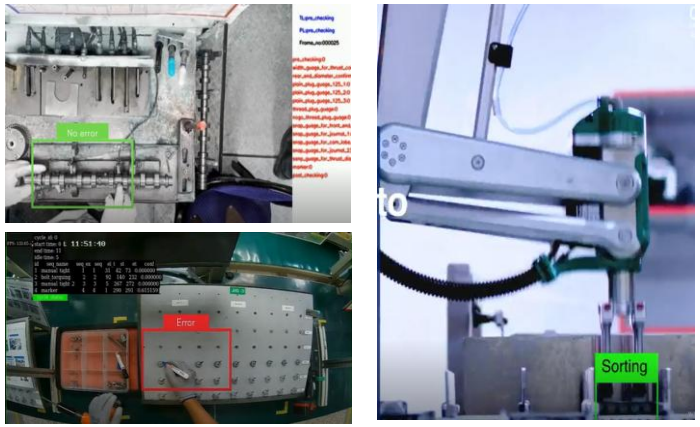
1. Object Detection

- Identify and classify defects in products to ensure quality and compliance

Illustrative Use-cases –
- Raw Material
- Packaging Defect Detection
- Product Label Validation

2. Action Detection

- Monitor, identify, and classify errors or abnormalities in manufacturing processes



Illustrative Use-cases –
- Anomaly Detection in Processes
- SOP Compliance
- Assembly Verification

1. Off the Production Line:

- Detailed examination of samples post-production
- Use of high-resolution cameras for thorough quality checks
- Examples: Inspecting batch samples, conducting detailed quality audits, micron-level telescopic images

2. High-Speed Production Line:

- Real-time quality checks during manufacturing
- Integration with conveyor systems to avoid slowdowns
- Examples: Detecting defects in real-time, ensuring correct assembly

Our Computer Vision Solutions are meticulously designed to support Comprehensive Quality Control use-cases

1. Anomalies:

Identifies defects or irregularities in products.

Use-cases:

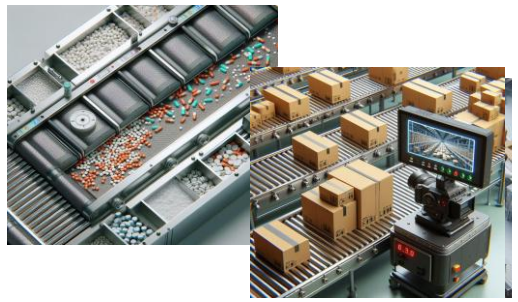
- Surface scratches or dents on metal parts
- Misalignment in assembled components
- Spots cracks or deformities in plastic molds

2. Measurement:

Ensuring products meet precise dimension checks

Use-cases:

- Measuring dimensions of components for precision
- Verifying the thickness of packaging materials
- Microscopic-level defect measurement



3. Counting:

Accurately counts products in production or packaging.

Use-cases:

- Counting pills in pharmaceutical packaging
- Automated Inventory Counting in Warehouses
- Counting Containers in Ports during loading and unloading

4. Video Analytics:

Analyzes video streams to monitor and ensure quality and efficiency.

Use-cases:

- Monitoring conveyor belts for jam detection
- Tracking assembly line performance over time
- Detects product orientation errors during packaging

Our Computer Vision approach follows 3 key steps and is widely used across industries delivering tangible benefits that drive business success

2. Model Development

1	2.1	2.2	2.3	2.4	3
Camera Set Up	**Data Collection**	**Data Labelling**	**Model Training**	**Model Validation**	**Model Deployment**

- Inspect site for camera placement.
- Install and calibrate cameras.
- Ensure accurate image/video capture.

- Capture and store images/videos.
- Ensure consistent data collection.
- Organize data efficiently.

- Annotate key features in the data.
- Use tools to automate labeling.
- Validate labeling accuracy.

- Select and train the model.
- Refine model with adjustments.
- Retrain with updated data.

- Test model on separate data.
- Adjust for accuracy issues.
- Fine-tune the model output

- Deploy the model in production.
- Monitor and adjust as needed.
- Schedule regular updates and retraining.

Thank you

Straive

We leverage our unique people-process-tech framework to build the best-of-breed data analytics & AI solutions. By operationalizing this solution into your core workflow, we deliver real-world measurable impact and better. ROIs through a combination of higher efficiency, elevated experiences, and enhanced revenues.