lexdata

// DOC_ID: LX-AGR-001

STATUS: ACTIVE DEPLOYMENT

INDUSTRY USE CASE

POWERING AUTONOMY IN AGRICULTURE

[80K+ IMAGE ANNOTATIONS]

// THE CHALLENGES

[01] Unreliable GPS signals beneath tree canopies and in low-visibility conditions (dust, underexposure).

[02] Unstructured, obstacle-dense environments and a critical lack of labeled visual data for AI training.

[03] Heavy reliance on manual labor across large-scale farm operations, driving up costs and reducing efficiency.

// OUR SOLUTIONS

[01] Annotated thousands of images using polygons and polylines to clearly identify crops, equipment, obstacles, and paths.

[02] Implemented semantic segmentation labeling to drastically improve object recognition models at the edge.

[03] Tagged diverse environmental variables including heavy dust, dark shadows, and visual occlusions.

// THE RESULTS

> Enhanced autonomous navigation in GPS-denied and low-visibility operational environments.

> Accelerated the field deployment of AI-powered physical navigation systems.

> Maximized safety and operational efficiency across large-scale agricultural footprints.

> Decreased reliance on manual labor, directly lowering operational overhead.

OPERATIONALIZE YOUR VISUAL DATA.

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