

## Mindtech DataOps platform - Training Data Analysis and Synthetic Data creation: Superior Al vision systems through Data Lifecycle Management







## **Summary**

Create Safe, Real-World Scenarios Without Public Panic.

Gun Detection is a critical activity for safety and security in many environments. Traditional methods of data gathering for AI model training and testing, are slow and expensive to capture and annotate. There are also privacy and IP issues, around the gathering of data without causing public panic or the need for a large number of human actors.

Mindtech's Dolphin dataset analysis platform rapidly delivers key dataset statistics, such as the number of guns and relative size of guns in the images, identifying current dataset deficiencies.

Mindtech's Chameleon synthetic data creation platform uses digital humans to enable creation of images with diverse humans, weapon types and locations, even with large crowds. Mo-cap animations models actor reactions to weapon sighting.

The result is the creation of AI vision systems that accurately detect weapons and are robust and unbiased, across age, gender, and skin tone as well as the number and type of weapons.

## **Mindtech Platform Benefits**

- Diverse Digital Humans improve model robustness and fairness
- Rapid database updates with new weapons to guard against data drift
- Creation of data for sensitive environments in an IP safe manner
- Dolphin dataset analysis ensures that sparse areas of training and testing data are identified
- Advanced curation ensures effeicient and rapid training at lowest cost

## **Mindtech Quick Facts**

- Dolphin Delivering up to 90% reduction in data costs with improved model performance
- Chameleon up to 10x faster creation of domainmatched, fully annotated vision images with no IP or privacy issues
- Training-ready data packs IP-safe, privacy-compliant, domain-specific, images and annotation data for rapid A vision system development

