

Diagnostic Tool for Human Movement

Track physical health and performance

- **Bounding boxes, key points, polygons, splines**
- Semantic segmentation
- **Video annotation**
- Large taxonomy application
- ML-assisted pre-labeling: object detection & classification
- Facial landmark detection
- Entity relationships & ID tracking
- Image Analysis and assessment

Project: Annotate key points on a subject captured in mobile phone videos in order to train ML models that track performance and physical health of humans.

Challenge: Identify and categorize each predefined body part via key points, while classifying profiles of the human subjects.

Solution: In order to increase accuracy and throughput, the Alegion team segmented the video annotation tasks into more manageable microtasks by creating a separate workflow for the key points annotation tasks and the subject profiling tasks. We then assigned the microtasks to annotators with the best skills match. Through a divide-and-conquer approach, we were able to run concurrent task workflows that reduced errors and burnout. This avoided throwing away work where only a part of the task was incorrect and expedited the review/validation stages increasing efficiency by 10x.

