# Outils d'annotation (mask) Segmentation pour le Active Learning

Pixel annotation ground truth

Vincent Le Falher (2021)

#### Offres rencontrées

- Plateforme complète
- Outils d'annotation
  - Assisté par modèle IA
  - manuel
- Sous-traitance

- Ouvert libre
  - MIL
  - Apache 2.0
- Licence payant mois / utilisateur
- Crédits
- Gratuit communauté universitaire / recherche

### Outils rencontrés

#### <u>Classiques</u>

 Restangle, polygon, polyline, points, brush, eraser, bounding boxes, cuboid (3d), image tags, label attributes, hotkeys/shortkeys

## Assistées par IA

- Smart tool (supervise.ly)
- Al tools (CVAT)
- Auto-Annotate (V7Labs)
- Smart segmentation (SuperAnnotate)
- DEXTR (4 points) (Hasty.ai)
- Al Assistant (Hasty.ai)
  - class prediction
  - object detection
  - instance segmentation

#### Méthodes spéciales (non assistées par IA)

- Contour (hasty.ai)
- Magic wand (hasty.ai)
- GrabCut (hasty.ai)
- SLIC Superpixels<sup>1</sup> (puzzle / casse-tête) (LabelBox)
- OpenCV tool (CVAT)
  - Automatic border
- <sup>1</sup>https://www.iro.umontreal.ca/~mignotte/IFT6150/Articles/SLIC Superpixels.pdf

- Vector
- Bitmap/pixel
- Videos
- 2d
- 3d

# Fonctionnalités rencontrées

- Web
- On-premise / hosted / Saas cloud
- Vector, Bitmap, Pixel editor
- 2d, 3d, images, videos
- Al assisted, manual annotation
  - Annotator Metrics
  - Review and QA
  - Secure
  - Medically Compliant
  - File management

- Project management
- Quality management
- Dashboards and analytics
- User roles
- Documentation and email Support
- Statistics Role management Integrations
- API SDK
- Dataset import
- Smart export
- Integration into workflows

- Leverage your models Turn predictions into ground truth
- Active learning Implement active learning pipelines
- Automation

#### Choix

- 1. V7labs Darwin \$ plateforme <a href="https://www.v7labs.com">https://www.v7labs.com</a>
- 2. SuperAnnotate \$ plateforme openCV <a href="https://superannotate.com/">https://superannotate.com/</a>
- 3. Supervise.ly \$\* plateforme <a href="https://supervise.ly/">https://supervise.ly/</a>
- 4. LabelBox \$ plateforme <a href="https://labelbox.com/">https://labelbox.com/</a>
- 5. CVAT gratuit outil Intel <a href="https://github.com/openvinotoolkit/cvat">https://github.com/openvinotoolkit/cvat</a>
- 6. Hasty.ai \$ plateforme <a href="https://hasty.ai/">https://hasty.ai/</a>
- 7. AIDE Annotation Interface for Data-driven Ecology gratuit plateforme Microsoft <a href="https://github.com/microsoft/aerial wildlife detection">https://github.com/microsoft/aerial wildlife detection</a>
- 8. VIA VGG Image Annotator gratuit outil <a href="https://www.robots.ox.ac.uk/~vgg/software/via/">https://www.robots.ox.ac.uk/~vgg/software/via/</a>
- 9. VoTT Visual Object Tagging Tool gratuit outil Microsoft <a href="https://github.com/microsoft/VoTT">https://github.com/microsoft/VoTT</a>
- 10.Slava label-tool gratuit outil <a href="https://github.com/Slava/label-tool">https://github.com/Slava/label-tool</a>
- 11.semantic-segmentation-editor gratuit outil Hitachi <a href="https://github.com/Hitachi-Automotive-And-Industry-Lab/semantic-segmentation-editor">https://github.com/Hitachi-Automotive-And-Industry-Lab/semantic-segmentation-editor</a>
- 12.Playment.io \$\* plateforme <a href="https://playment.io/">https://playment.io/</a>
- 13. Anolytics outsource <a href="https://www.anolytics.ai/semantic-segmentation-services/">https://www.anolytics.ai/semantic-segmentation-services/</a>
- 14.segments.ia outsource <a href="https://segments.ai">https://segments.ai</a>
- 15.Xyonix outsource <a href="https://www.xyonix.com">https://www.xyonix.com</a>
- 16.Scalabel gratuit plateforme <a href="https://www.scalabel.ai/">https://www.scalabel.ai/</a>
- 17. Heartex (Label Studio) gratuit outil <a href="https://heartex.com/">https://heartex.com/</a>
- + SIG (ArcGIS, QGIS, etc)
- + usual image manipulation tools (Gimp, etc)