

Image Segmentation (Semantic Segmentation)	Compare Packages			
	Feature / Aspect	Detectron2	MMSegmentation	
	License	Apache 2.0		
	Primary Focus	General-purpose detection and segmentation, including panoptic segmentation	Semantic and instance segmentation (panoptic via panoptic fusion)	
	Model Support	Panoptic FPN	Strong in semantic segmentation (e.g. DeepLabV3+, Swin Transformer); panoptic via Mask2Former integration	
	Ease of Use	Easy to use with clean config system; good for quick prototyping	More complex configuration system, but highly modular and extensible	
	Training Flexibility	Not currently available for training panoptic segmentation models	Highly modular (e.g., interchangeable backbones, heads, and losses); better suited for large-scale experiments	
	Deployment Support	TorchScript, ONNX, Caffe2	ONNX, TensorRT, ncnn, PPLNN, OpenVINO (depends on model)	
	Community & Ecosystem	Large, research-focused community	Large, extensive OpenMMLab ecosystem	
	Documentation	Very well-documented	Extensive documentation, including tutorials and recipes	
	Installation Complexity	Easy	Complex (requires MMCV, MMEngine, CUDA compatibility)	
	Compare Algorithms			
	Model	Panoptic FPN	PSPNet	Mask2Former
	Type	Two-branch CNN	Single-branch CNN	Unified Transformer-based architecture
	Year	2019	2017	2021
	Architecture	Mask R-CNN with FPN and a semantic segmentation branch	ResNet backbone with Pyramid Pooling Module (PPM)	Pixel decoder with masked attention Transformer; supports panoptic, instance, and semantic segmentation
	Speed	Medium	Relatively faster	Slow
	Accuracy (mIoU) of Cityscapes	Fair (75.7)	Good (79.77)	Excellent (83.65)
	Best For	Having a good instance segmentation model to integrate on, supports instance and semantic segmentation	Simple scenes (that may requiring global context), semantic segmentation only, real-time or resource-constrained applications	Complex scenes, High-accuracy applications; supports panoptic, instance, and semantic segmentation in a unified model
	Limitations	Lower accuracy on complex scenes; lacks global context modeling	Lacks instance-level precision	Higher computational cost; Slower inference
	Corresponding Package	Detectron2	MMSegmentation	MMSegmentation
	TL;DR			
	For pretrained-only use - Detectron2			