

### **Solution report:**

To achieve the best results in Soil erosion on your particular dataset, it seems to me that it is certainly necessary but not enough to read papers on soil erosion detection using deep learning, for example, in google scholar or arxiv, such articles are focused on how to solve soil erosion on custom datasets (that is, each article uses a different dataset that interests the authors of the paper) using deep learning

If there was one well-known dataset on soil erosion detection as a semantic segmentation task (I did not find it), where scientists competed to get the best results using neural networks, it would be much easier

Therefore, in my opinion, it would be worth paying attention to the paperswithcode website <https://paperswithcode.com/task/semantic-segmentation> section semantic segmentation where scientists compete to get the best results on a particular dataset

Here you will be able to find sota and the best ideas at the moment specifically in semantic segmentation, which you can already try to use depending on the context for yourself

**State-of-the-Art** | Datasets | Methods | More ▾

## Browse State-of-the-Art

10,718 benchmarks · 4,023 tasks · 90,325 papers with code

### Computer Vision

Task	Benchmarks	Papers with code
Semantic Segmentation	208	3613
Image Classification	409	2911
Object Detection	278	2709
Contrastive Learning	2	1264
Image Generation	211	1193

▶ See all 1463 tasks

### Natural Language Processing

Task	Benchmarks	Papers with code
Language Modelling	61	2452
Question Answering	189	1931
Machine Translation	90	1772
Sentiment Analysis	88	1067
Text Generation	248	993

▶ See all 682 tasks

### Medical

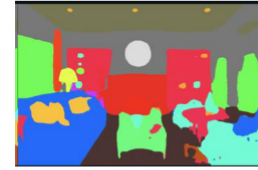
Task	Benchmarks	Papers with code
Transfer Learning	-	-
Medical Image Segmentation	-	-
Drug Discovery	-	-
Lesion Segmentation	-	-
Medical Diagnosis	-	-

# Semantic Segmentation

3613 papers with code • 97 benchmarks • 255 datasets

Semantic segmentation, or image segmentation, is the task of clustering parts of an image together which belong to the same object class. It is a form of pixel-level prediction because each pixel in an image is classified according to a category. Some example benchmarks for this task are Cityscapes, PASCAL VOC and ADE20K. Models are usually evaluated with the Mean Intersection-Over-Union (Mean IoU) and Pixel Accuracy metrics.

( Image credit: CSAILVision )



## Benchmarks

[Add a Result](#)

These leaderboards are used to track progress in Semantic Segmentation

Trend	Dataset	Best Model	Paper	Code	Compare
	ADE20K	InternImage-H (M3I Pre-training)			<a href="#">See all</a>
	Cityscapes test	InternImage-H			<a href="#">See all</a>
	ADE20K val	BEiT-3			<a href="#">See all</a>
	Cityscapes val	InternImage-H			<a href="#">See all</a>
	NYU Depth v2	CMX (B5)			<a href="#">See all</a>
	PASCAL Context	InternImage-H			<a href="#">See all</a>
	PASCAL VOC 2012 test	DeepLabv3+ (Xception-65-JFT)			<a href="#">See all</a>

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