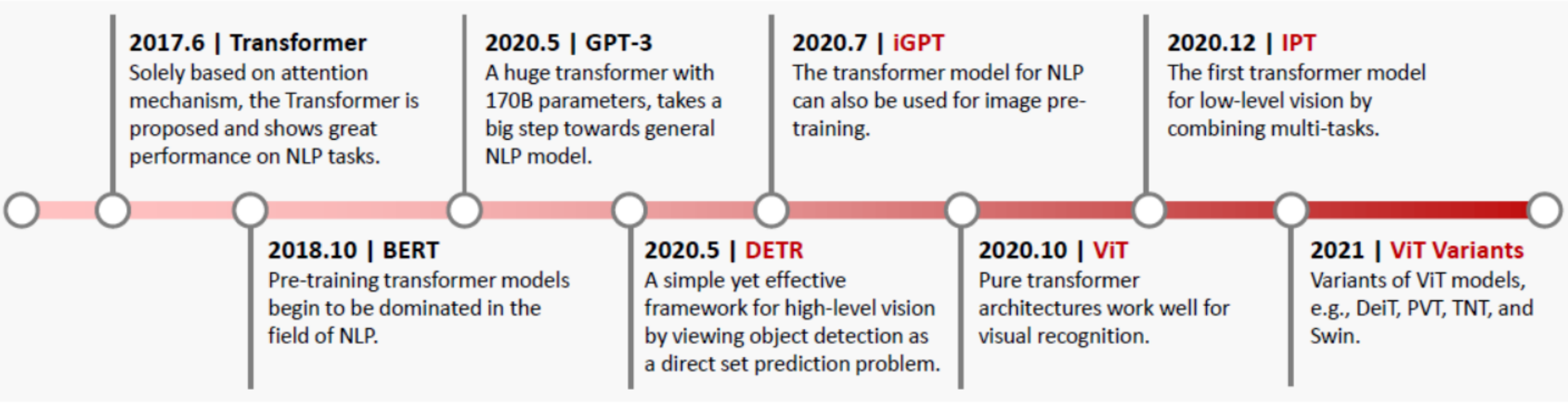

Swin Transformer
实战实例分割
car|0.98
bench|0.39
car|0.36
bench|0.99
car|1.00
car|0.96
训练自己的数据集


Swin Transformer
实战目标检测
训练自己的数据集


Swin Transformer
实战实例分割
训练自己的数据集

Key milestones in the development of transformer



Swin Transformer

State of the Art | Object Detection on COCO test-dev (using additional training data)

State of the Art | Instance Segmentation on COCO test-dev

State of the Art | Semantic Segmentation on ADE20K (using additional training data)

Ranked #3 | Action Classification on Kinetics-400 (using additional training data)


elephant: 0.99
elephant: 0.89
elephant: 0.94
ant: 0.49


课程内容
基础篇
图像分割的任务说明
常用数据集
性能指标
原理篇
Transformer及在CV领域的应用
Swin Transformer原理
项目实战篇
Windows & Ubuntu
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安装PyTorch
克隆和安装Swin-Transformer-Object-Detection
标注数据集
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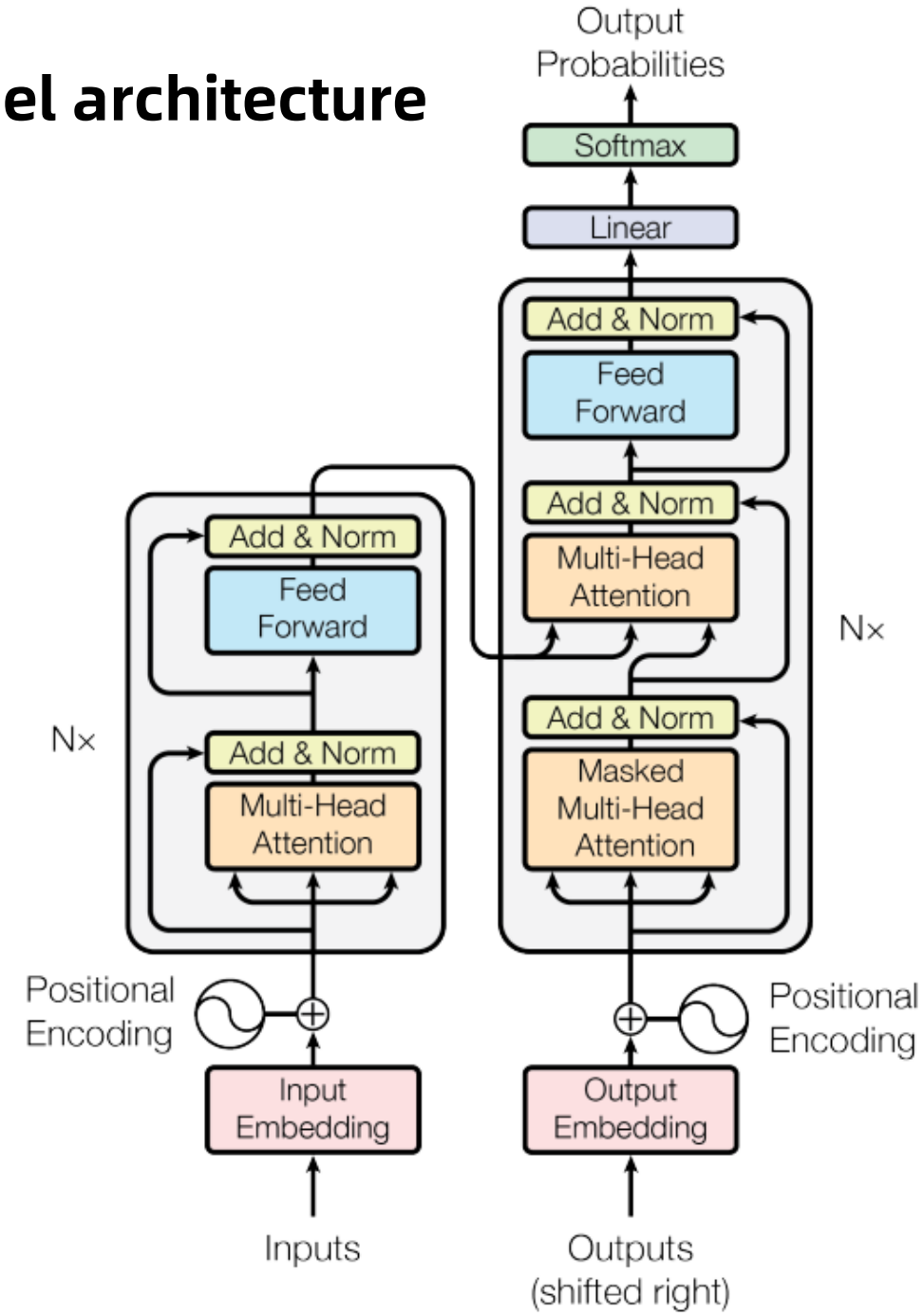
修改配置文件
训练数据集
测试训练出的网络模型、性能统计、日志分析
项目：汽车驾驶路景物体分割

Transformer - model architecture



The architecture of a Swin Transformer (Swin-T)

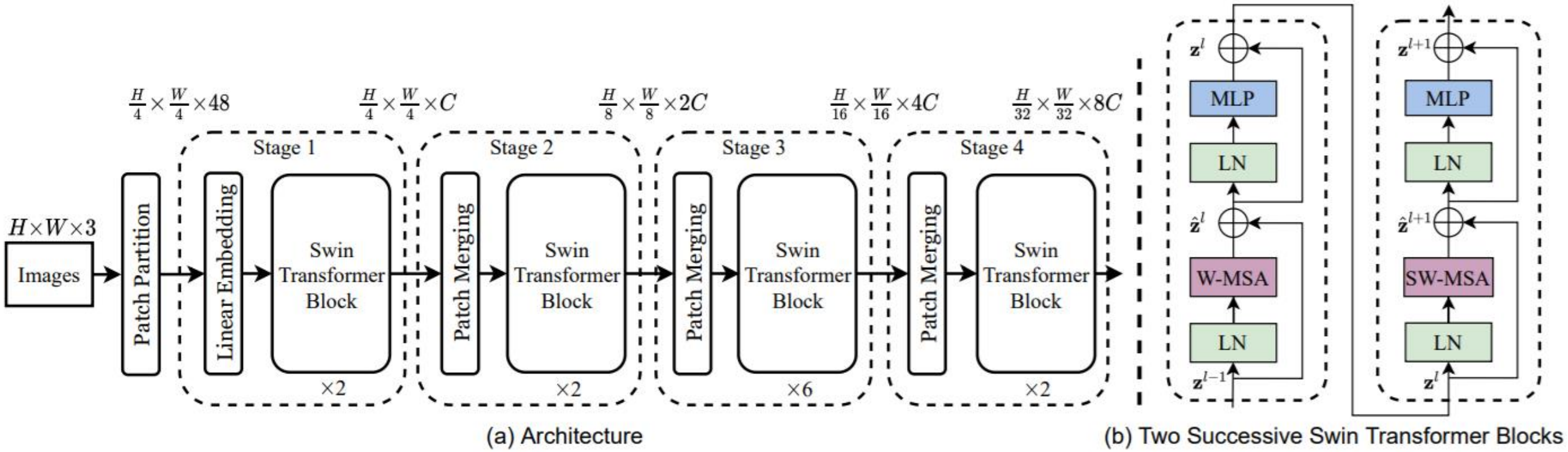
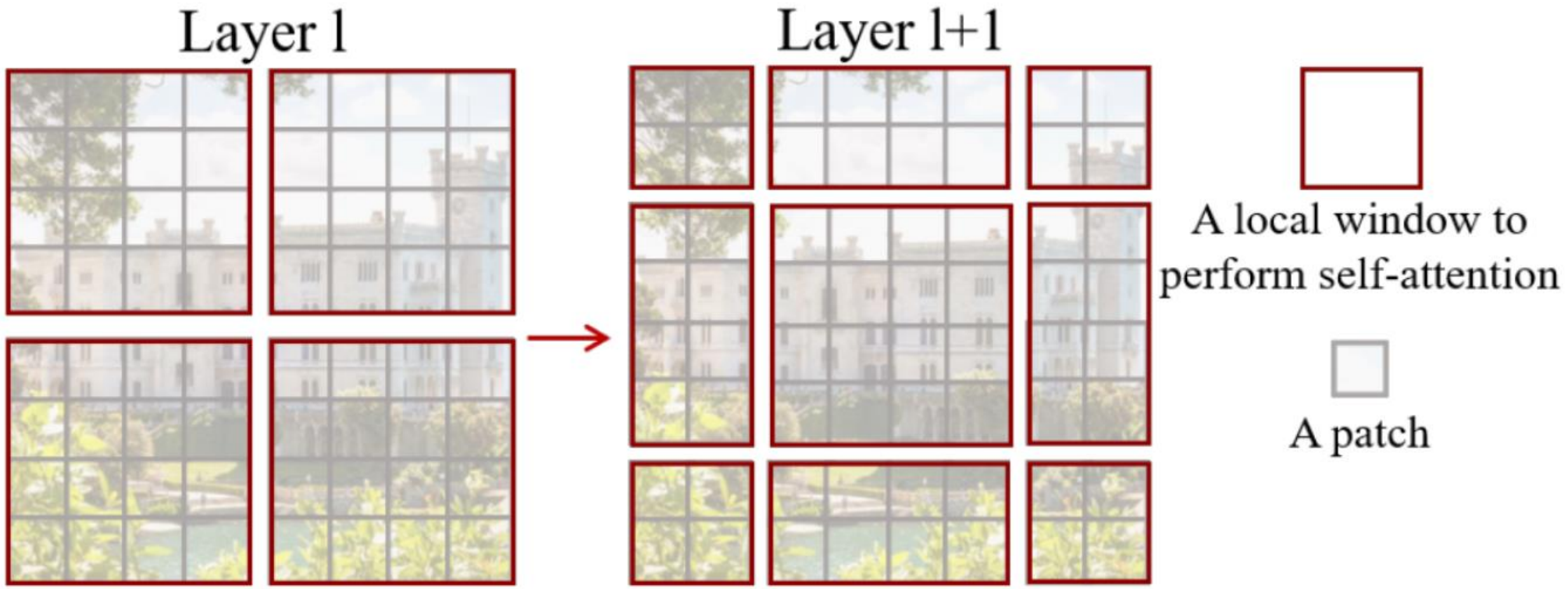


Figure 3. (a) The architecture of a Swin Transformer (Swin-T); (b) two successive Swin Transformer Blocks (notation presented with Eq. (3)). W-MSA and SW-MSA are multi-head self attention modules with regular and shifted windowing configurations, respectively.

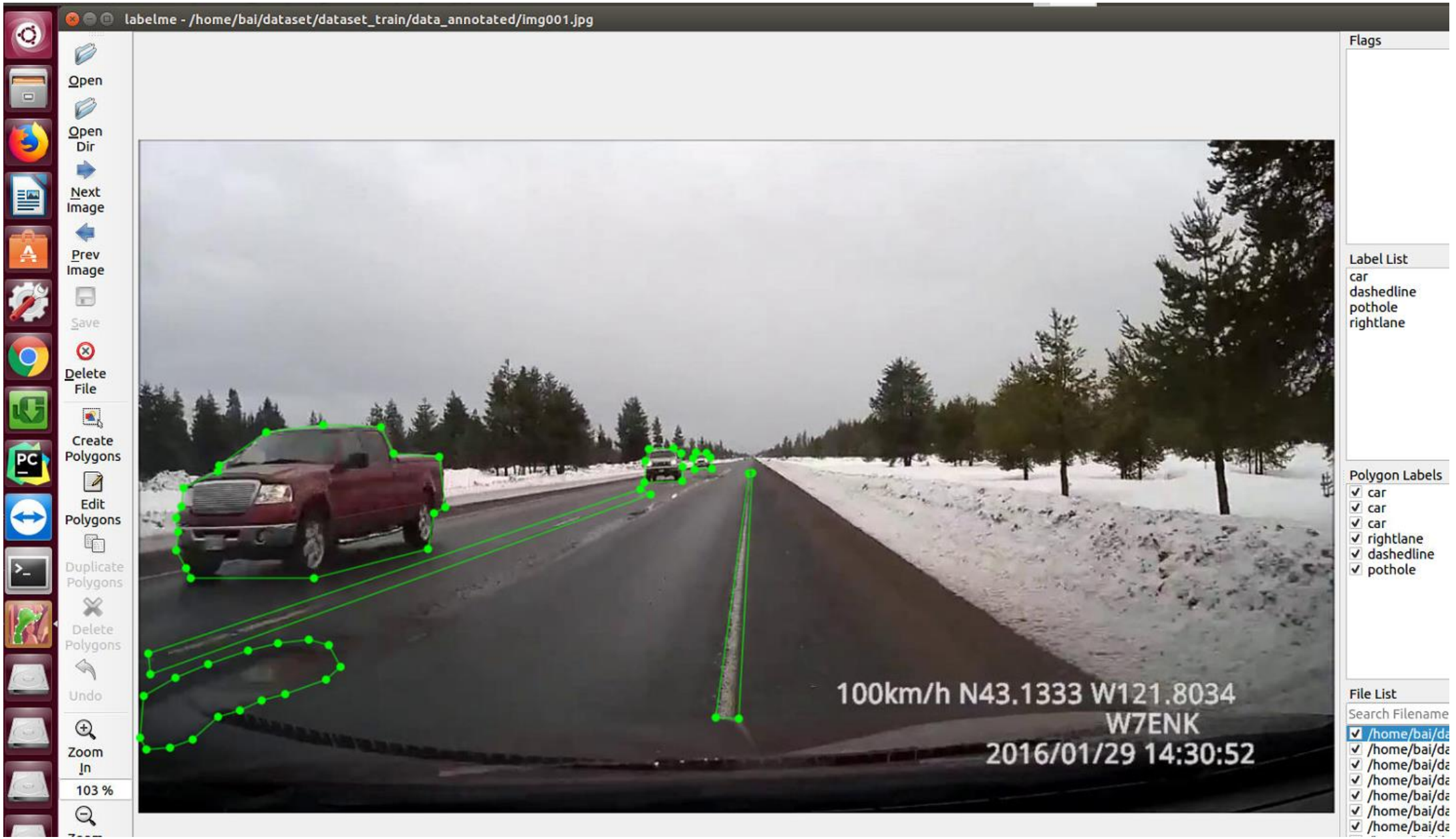
核心创新



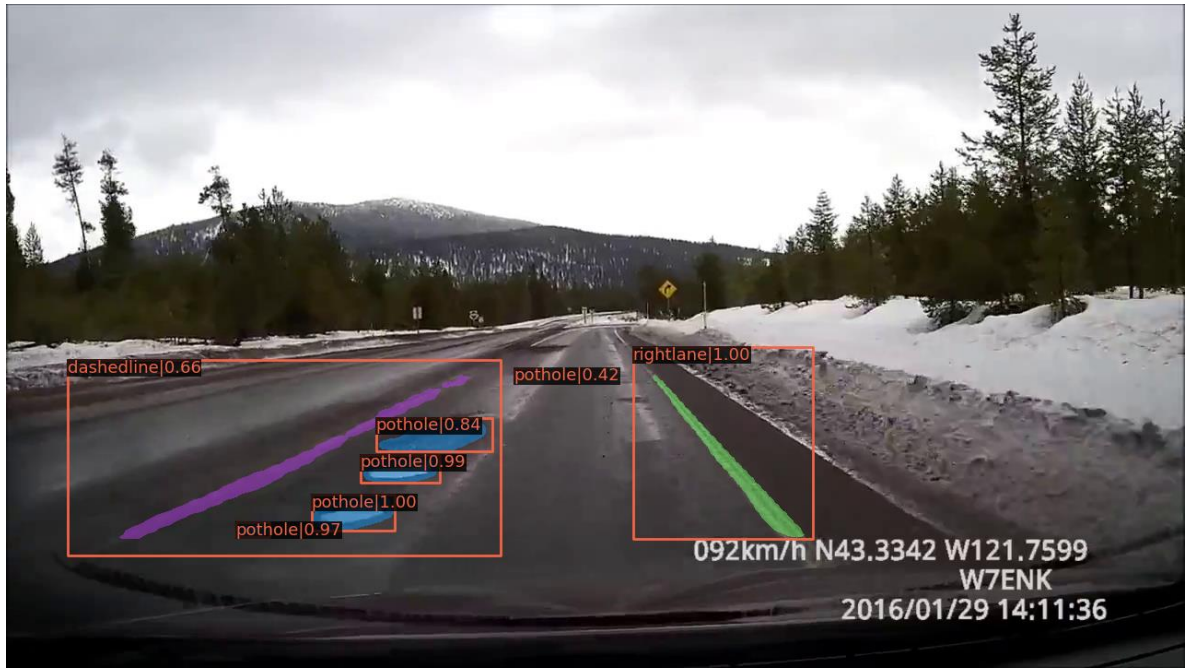
1）自注意力的计算在局部的非重叠窗口内进行。

2）在前后两层的Transformer模块中，非重叠窗口的配置相比前一层做了半个窗口的移位，使得上一层中不同窗口的信息进行了交换。

图像标注工具：labelme



图像分割效果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pothole|0.84
pothole|0.99
pothole|1.00
pothole|0.97
pothole|0.42
rightlane|1.00
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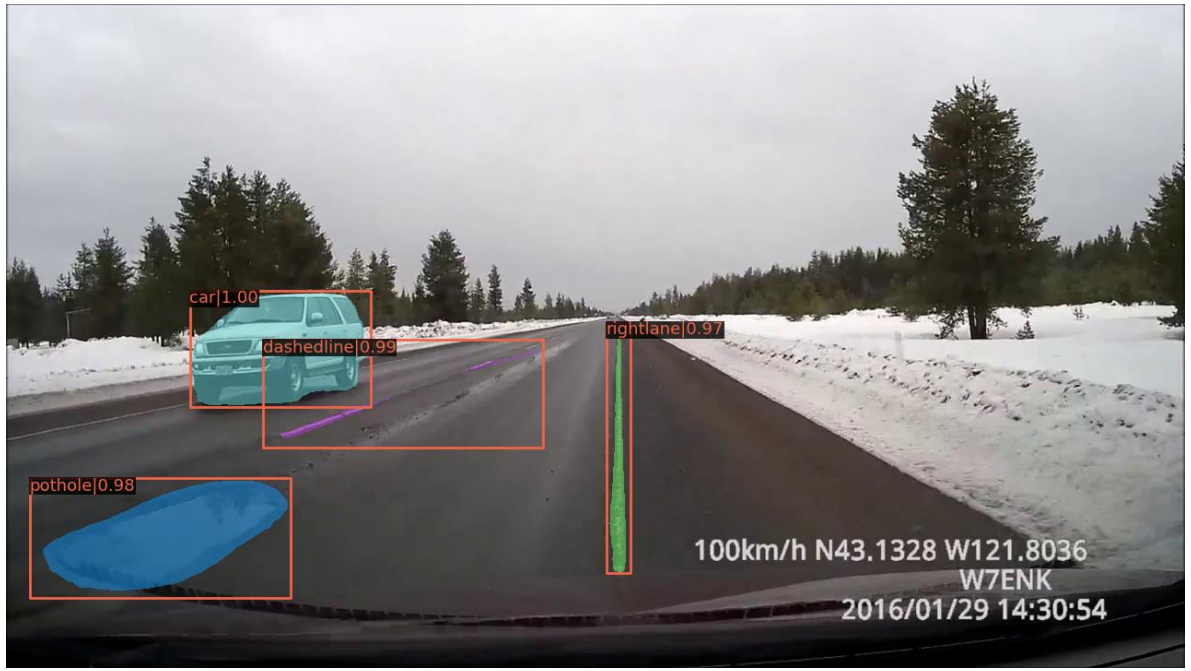
W7ENK
2016/01/29 14:11:36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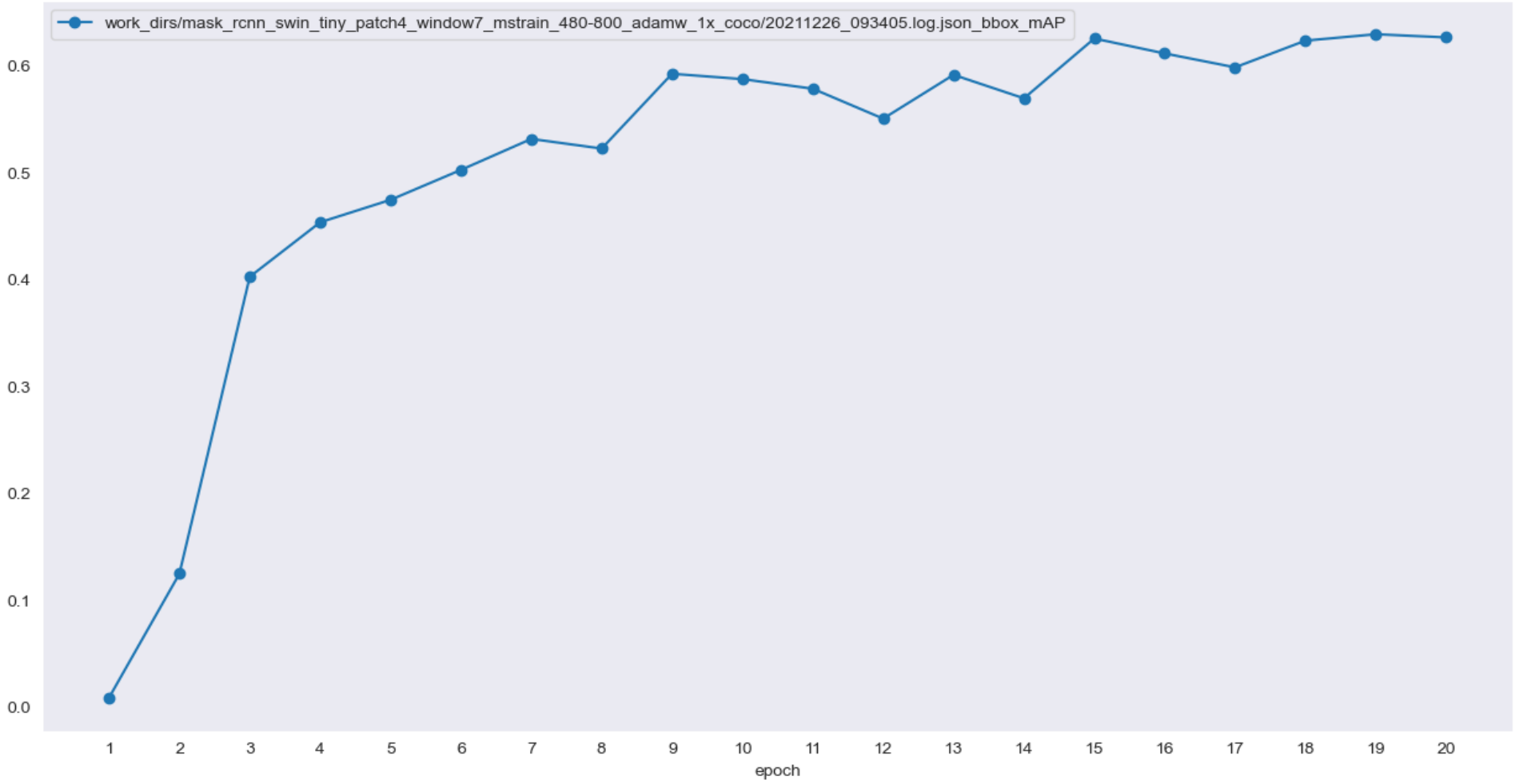
rightlane|0.97
pothole|0.98
100km/h N43.1328 W121.8036
W7ENK
2016/01/29 14:30:54

日志分析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0.4
0.3
0.2
0.1
0.0
1
2
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4
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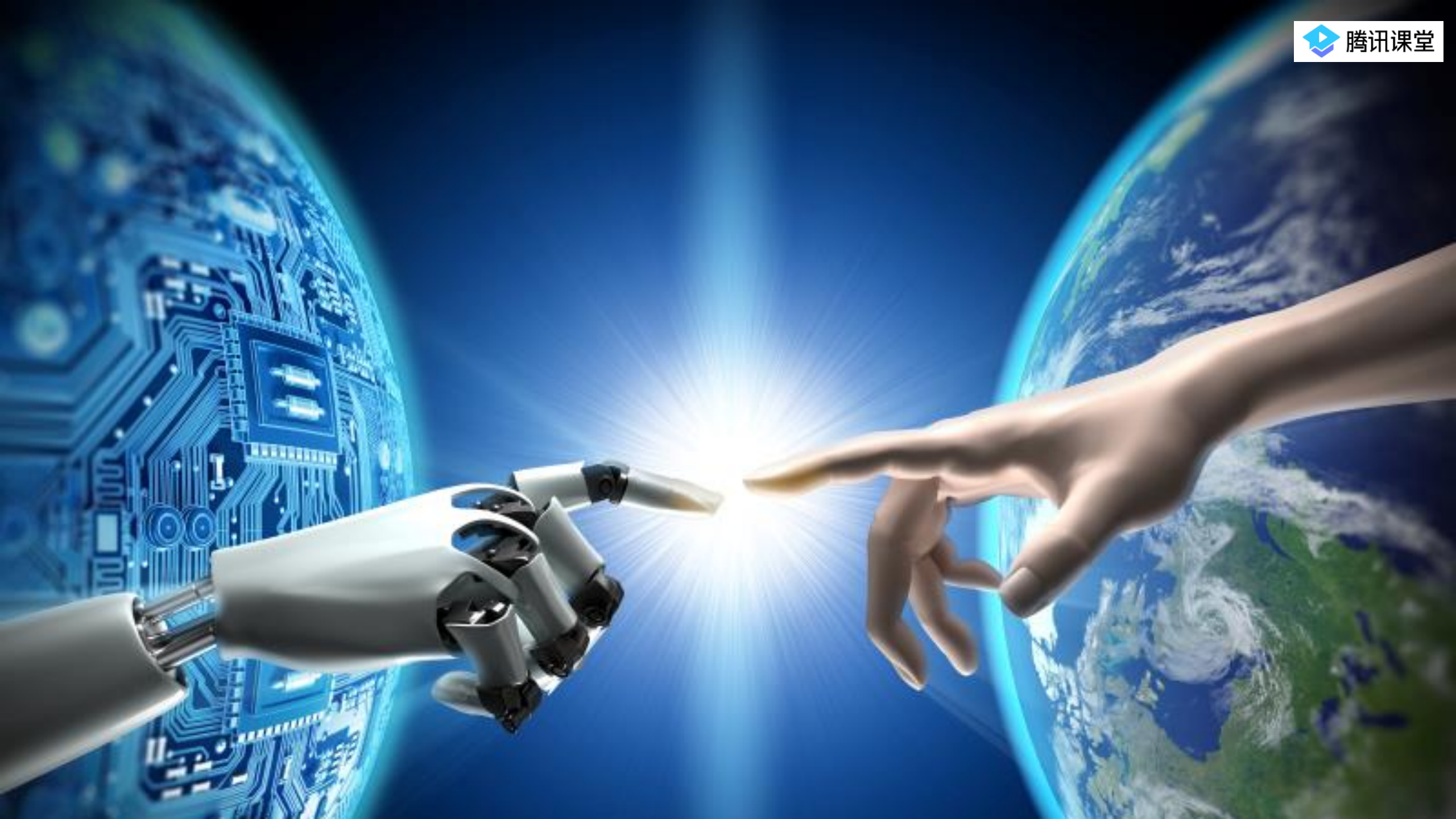
epoch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