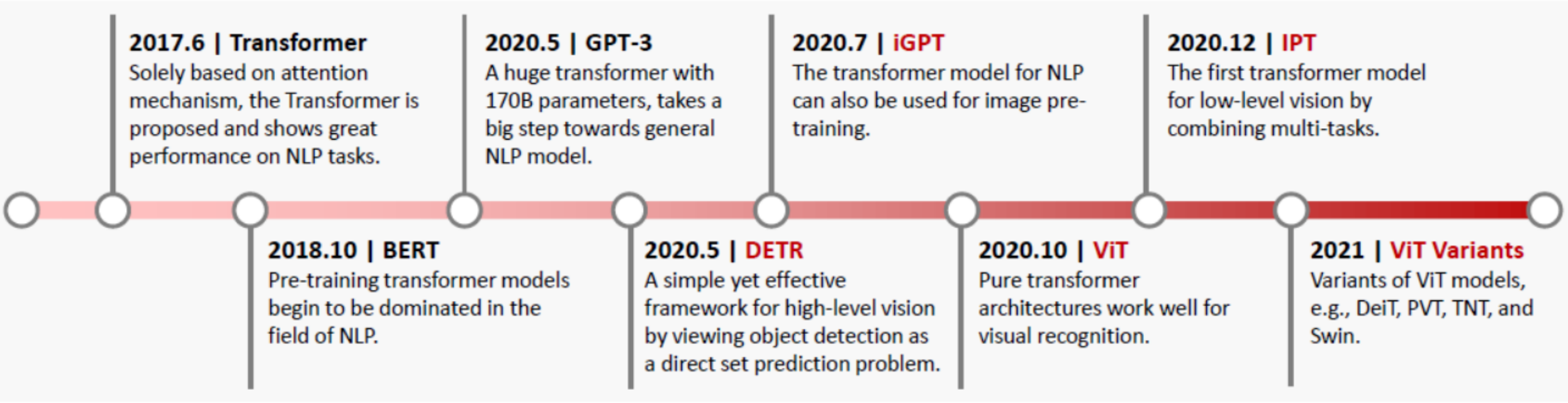

Swin Transformer
实战目标检测
car|0.98
bench|0.39
car|0.36
bench|0.99
训练自己的数据集

Key milestones in the development of transformer



Swin Transformer

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

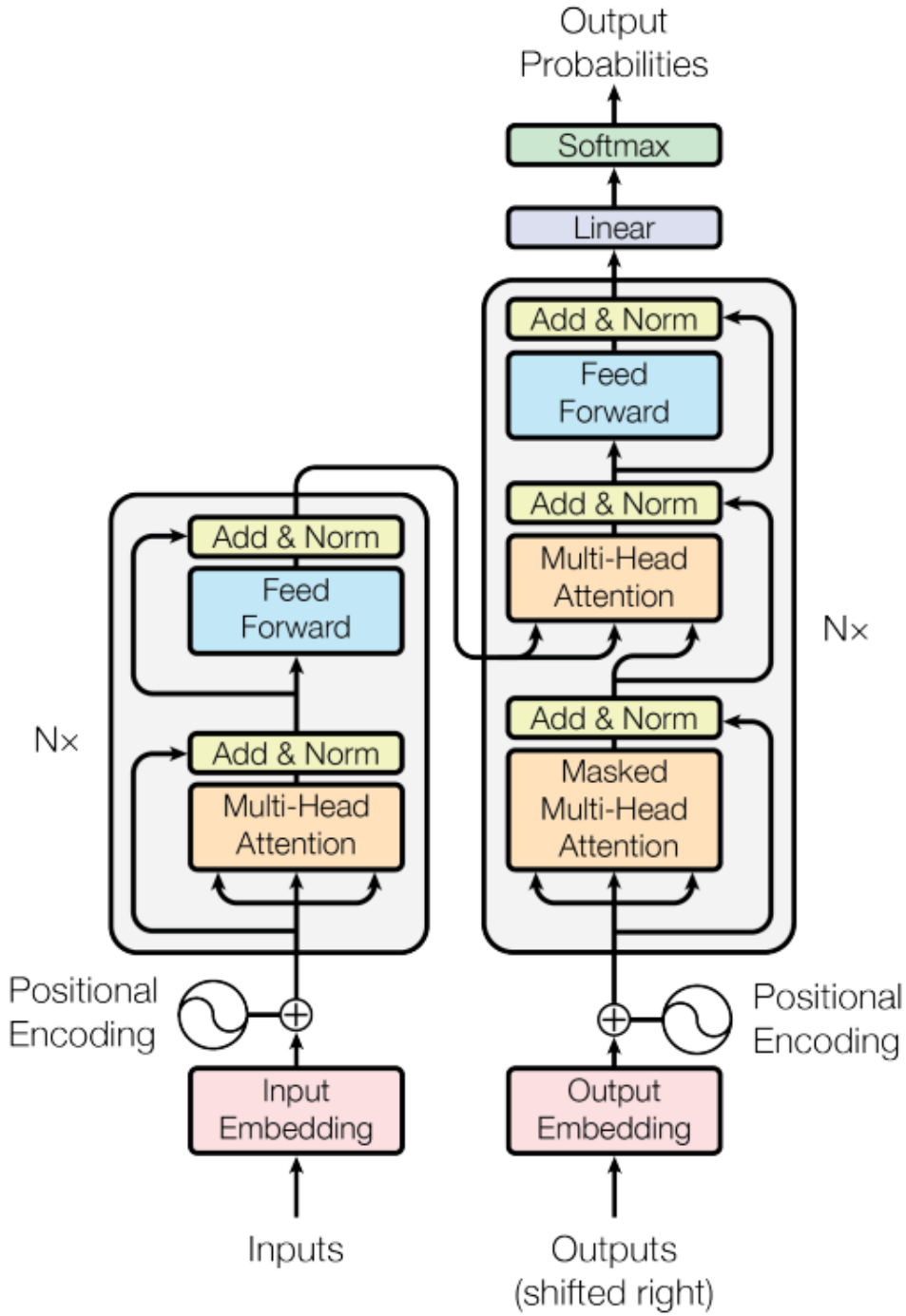
State of the Art | Instance Segmentation on COCO test-dev

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

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

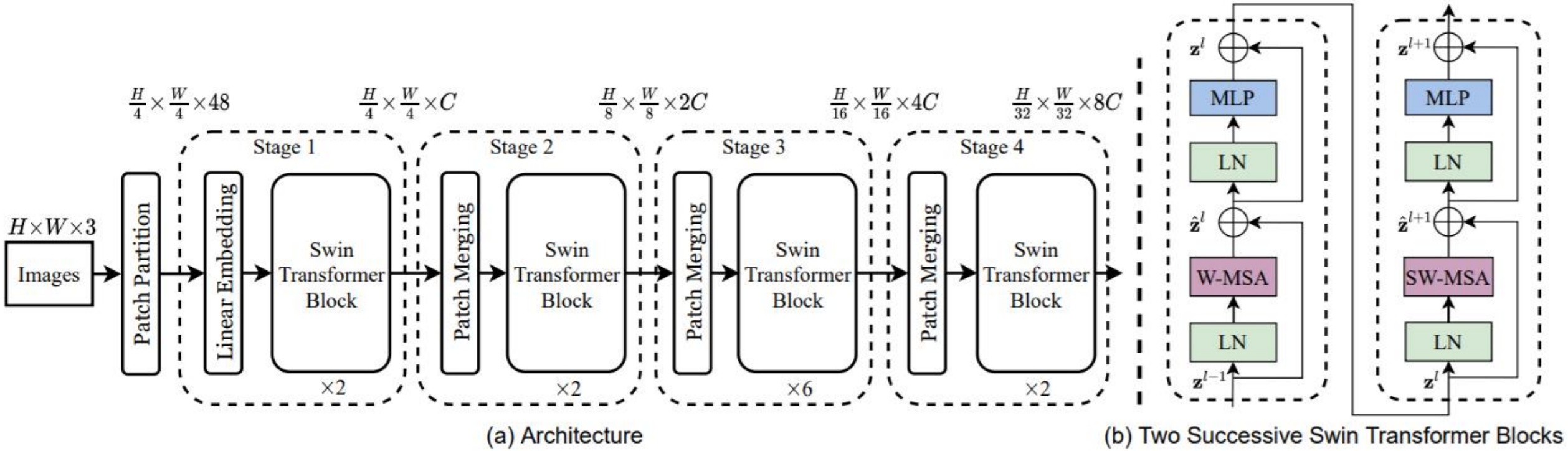

课程内容
基础篇
任务说明
常用数据集
性能指标
原理篇
Transformer及在CV领域的应用
Swin Transformer原理
项目实战篇
Windows & Ubuntu
安装软件环境
安装PyTorch
克隆和安装Swin-Transformer-Object-Detection
标注数据集
数据集自动划分及格式转换（提供python脚本）
修改配置文件
训练数据集
测试训练出的网络模型、性能统计、日志分析
项目：多类别目标检测：
足球和梅西

Transformer



The architecture of a Swin Transformer (Swin-T)

good priors for visual signals：hierarchy / locality / translation invariance

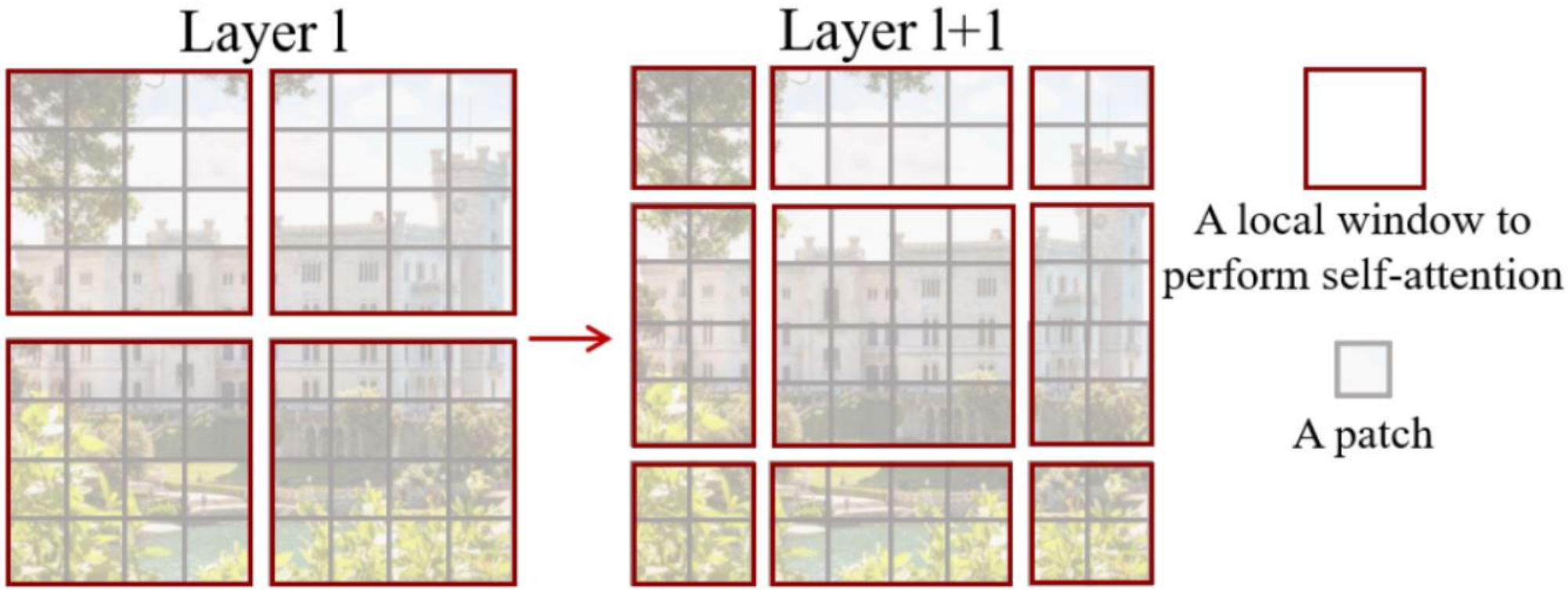


(a) Architecture

(b) Two Successive Swin Transformer Blocks

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：labelImg

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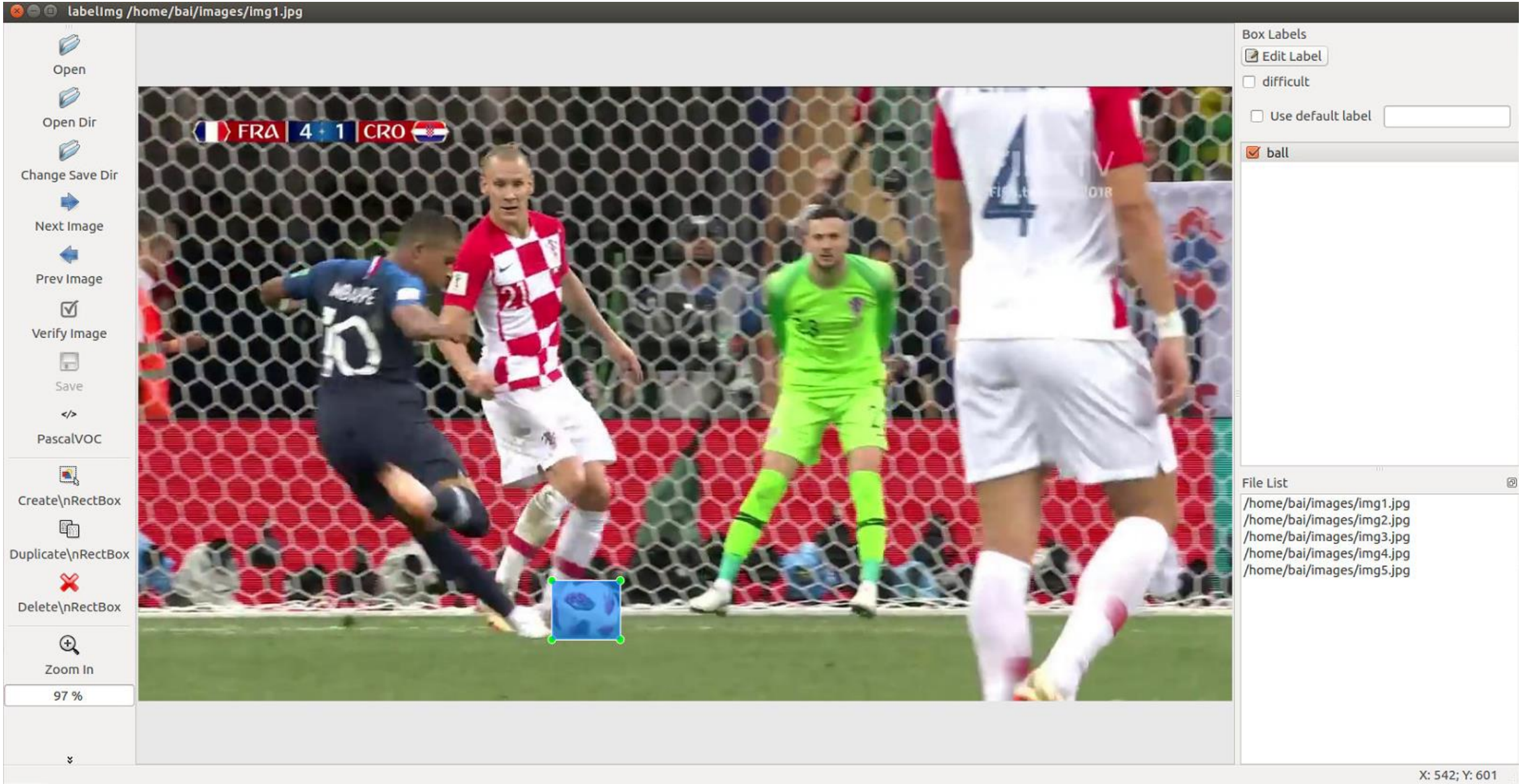
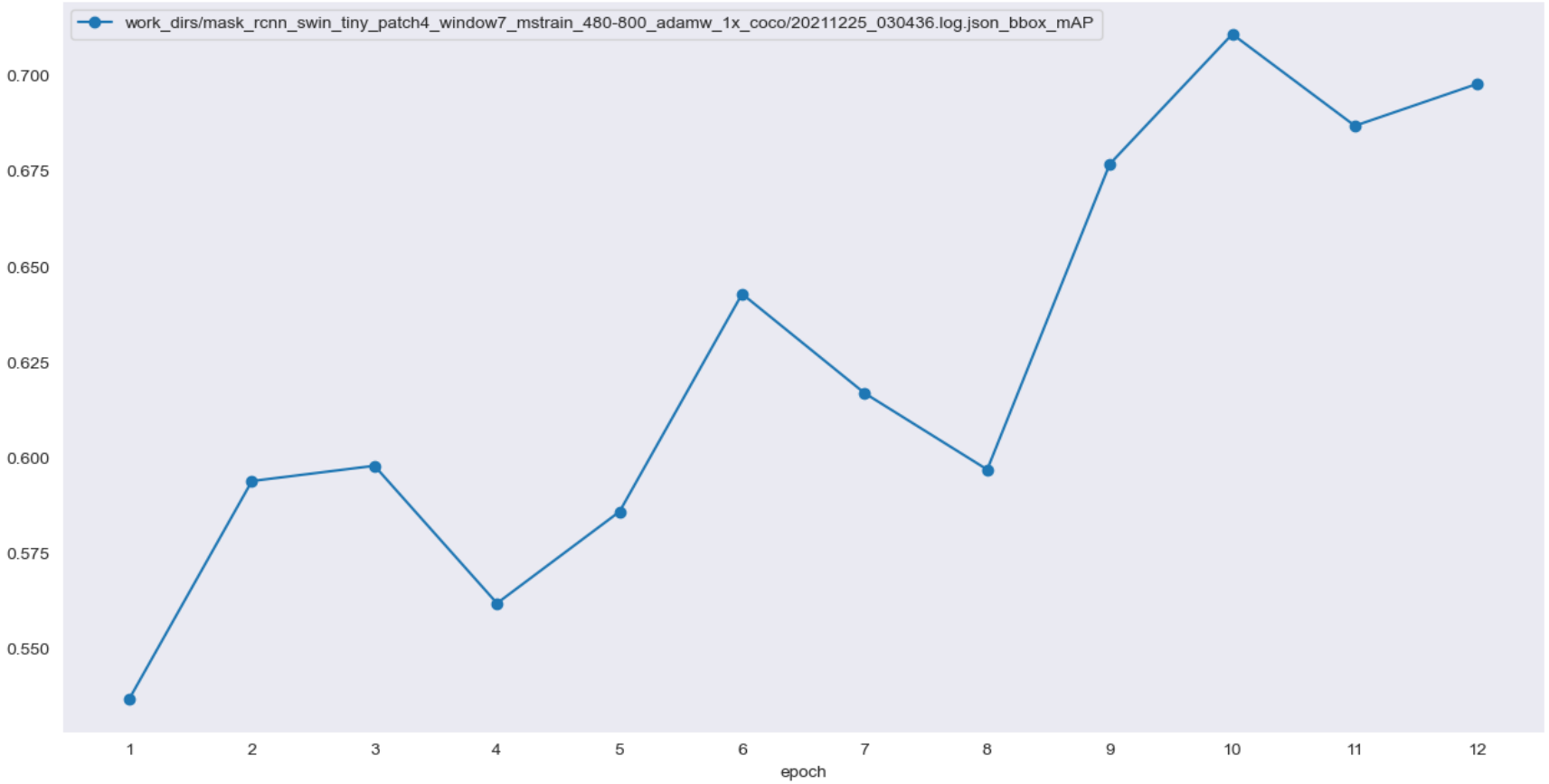


图片检测效果

日志分析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0.575
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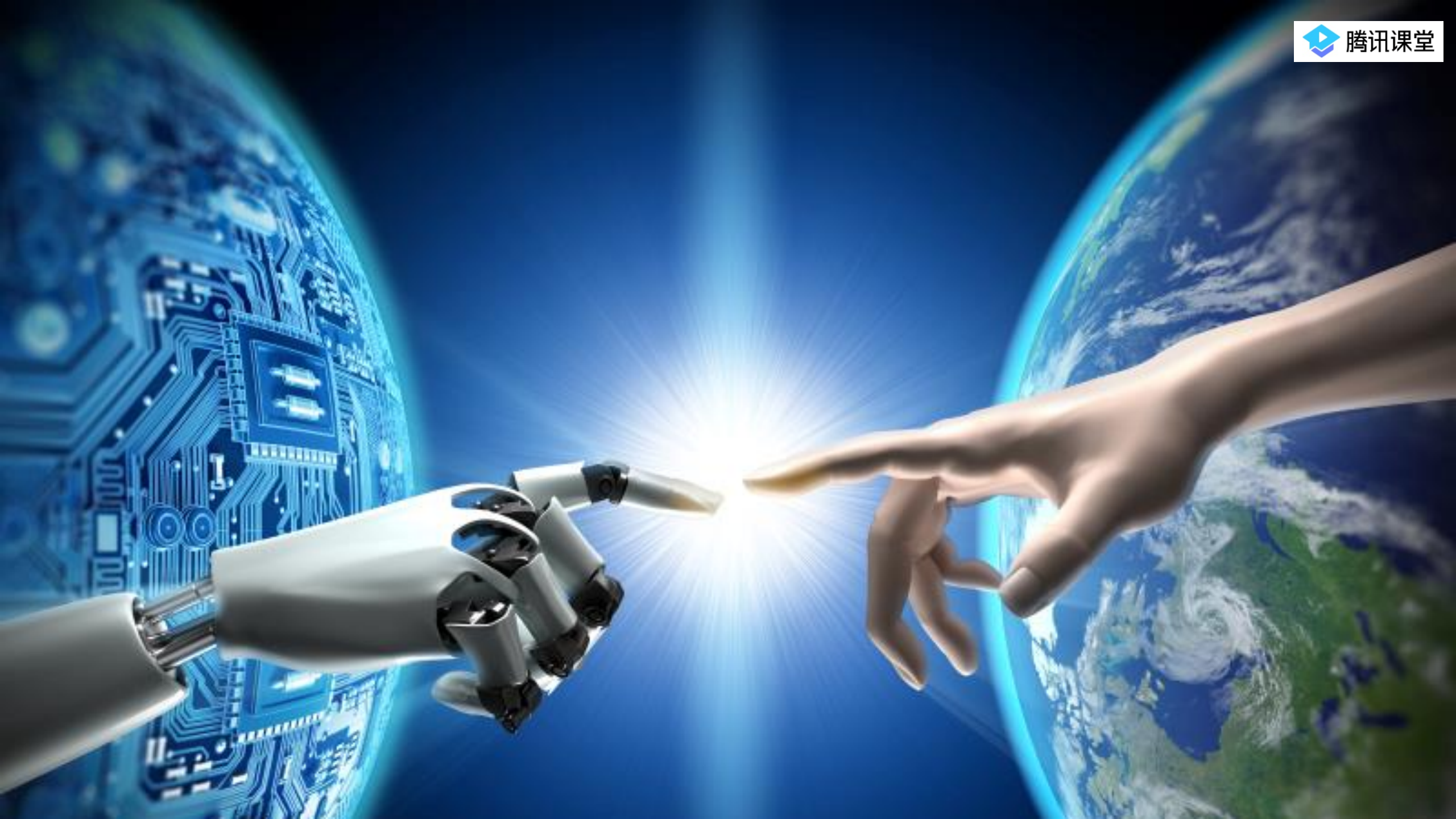
8
9
10
11
12
epoch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