## ### DynamicViT(0e‡%ã(ûb¥TJ`;~Ó

## #### 1. x zv€ÌfoN R"g:

- \*\*•î´´´€jÎfo\*\*ÿ ‰Æ‰ĚTranṣformerÿ ViTÿ W(VþPÏR |{{INûR¡N-jhs°Qú,rÿ OFQv‹¡{—Y gB^¦šØÿ \\$Qvf/•êl
- \*\*h8\_ÉÂ[ß\*\*ÿ ViŢv"g ~È~"mKNÅO••VNŽ\ 'ÏOá`oN0[Ìv"VþPÏWWÿ tokensÿ ÿ Y''ÏQ—OYtokenSï^«Rjg
- \*\*vîh \*\*ÿ cĐQúN yÍR¨` tokenz u∙S hFg¶ÿ DynamicViTÿ ÿ h9cn•"QeQ…[¹• keRjg•Q—OYtokenÿ f>"W–l

### #### 2. e<sup>1</sup>IÕR e°

- 1. \*\*R"` R \BRjg•\*\*ÿ
  - \*\*~,,mKj!WW\*\*ÿ •{'Ï~§MLPj!WWÿ ~ÓT \@•èry\_•ÿ \_SRMtokenÿ TŒQh\@ry\_•ÿ VþPÏN N e‡ÿ ÿ ~,,mKk
  - \*\*R \BRjg•{Vue\*\*ÿ W(Transformerv,,Y N\*N-•ô\Bÿ Y,{,40 70 10\Bÿ keRjg•ÿ OYuYkÔO‹c QàOU^•R •

## 2. \*\*<-~ÃO S b€g/\*\*ÿ

- \*\*Gumbel-Softmax\*\*ÿ ‰ãQ3NŒP<Q3{Vÿ OÝuY/Rjg•ÿ v"N Sï\_®•î~~ÿ e/c zïR0zï (-~Ã0
- \*\*lèa R›c©x ÿ Attention Maskingÿ \*\*ÿ •Ç-;e-^«Rjg•tokenN QvNÖtokenv"N¤N'ÿ [žs°xlNöSËY]v"z u

#### 3. \*\*c\_Y1Qýep<3/4<; \*\* ÿ

- R |{c\_Y1ÿ Cross-Entropyÿ + ",™•c\_Y1ÿ N SŸYËj!W‹•"Qú[ùŸPÿ + TokenR ^ c\_Y1ÿ ~¦g\_Rjg•kÔO‹ÿ (

#### #### 3. [žšŒ~Ógœ

- \*\*`'€ýN eHs‡\*\*ÿ
- \*\*j!W<\*\*ÿ W(DeiT-S0 LV-ViT-S/M{Iš"^r•Q~ÜN šŒ<Á0
- \*\*c h \*\*ÿ Rjg•66% tokeneöÿ FLOPsQÏ\ 31%~37%ÿ T T 'ÏcĐSG40%~54%ÿ |¾^\N –M<0.5%ÿ ImageN
- \*\*[ùkÔŚOŤĂ\*\*ÿ DynamicViŤ-LV-M/0.7W(8.5G FLOPsN •¾R083.8%QÆxns‡ÿ O NŽEfficienťNet-B5ÿ

#### - \*\*Sï‰ÆS R g•\*\*ÿ

- Rjg••Çz ke€Zq&NŽVþPÏQs•.S:Wßÿ Y,riOSN-\_Ãÿ ÿ Xž\_:j!W‹Sï‰ã'Ê`'0
- ~ß<if>y:N- Ãtokenfôf ^«OÝuYÿ N •êg6VþPÏN-riOSR ^ v,QHšŒN •ô0

#### #### 4. b€g/O R¿

- \*\*R"` ^", "\*\*" Rjg•Q3{VWúNŽ•"QeQ...[1"y O NŽ—Y` Rjg•b -•g:Rjg•y [žšŒf>y:—Y` Rjg•|¾^\N -M6.4%]
- \*\*xlNöSËY}\*\*ÿ —^~Óg"S z u•• •Çlèa R›c©x [žs°ÿ [ž–Ec¨t ^lcÐSGf>"W0
- \*\*bi\U`'\*\*ÿ u(NŽN T ViTSØOSÿ Y,DeiT0 LV-ViTÿ TŒ•"QeR •"s‡ÿ 384×384N FLOPsQÏ\ 55%ÿ 0

## #### 5.\@-PN g\*gee1T

- \*\*\ Rjg•kÔO←PR6\*\*ÿ < Ã ãV\_dþ ö5ő" cèE•ð…~#Á=0.5eö|¾^¦N −M1.3%~2.3%ÿ 0
- \*\*NûR¡bi\U\*\*ÿ \_SRM€Zq&R |{NûR¡ÿ g\*geSïc¢}"‰Æ~'R |{0 [Æ–Æ~"mKÿ Y,hÀmK/R Rrÿ {IW:fo0

# #### 6. `:~Ó

 $DynamicViT \bullet \bullet CR ``tokenz u \bullet S_{,} "y \top M_{-k}! ["zs" N_{+} ViTv_{,s}"] \& PR \bullet N_{-k}" \bullet N_{$ 

- 1. \*\*epcnO••Vv,,Rjg•g:R6\*\*ÿ OÝuYOá`oN0[Ìtokenÿ ••QMVú[šj!\_ Rjg•v,,\@-P`'0
- 2. \*\*zïR0zïSï‹-~˾‹¡\*\*ÿ ~ÓT Gumbel-SoftmaxN lèa R›c©x ÿ ‰ãQ³z u•S N Sï\_®•î~0
- 3. \*\*\_ n•N SïY s°`'\*\*ÿ Nãx ]òQl\_ ÿ [žšŒ‰†vÖY š"^r•Q~ÜTŒ'M•nÿ ~Ógœ‹æ[žSï—`0