



首发于 **次元壁** 



## Mathpix 更新 Text 模式



酱紫君 💠



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https://github.com/GalAster/Mathpix

@github.com



Mathpix 新出了一个 text 模式, 简单地说就是一页 PDF 如果没有图标只有文字和公式的话能直接识别整页, 效果如下:











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ment- Harnhar

```
+ \left. \lambda_{\mathsf{coord}} \sum_{i=2}^{S^2} \sum_{i=1}^{B} \mathbb{1}^{\mathsf{obj}}_{ij} \left[ \left( \sqrt{w_i} - \sqrt{\hat{w}_i} \right)^2 + \left( \sqrt{h_i} - \sqrt{\hat{h}_i} \right)^2 \right]
```

where

 $\mathbb{I}_{a}^{obj}=1$  if the j th boundary box in cell i is responsible for detecting the object, otherwise 0.

 $\lambda_{count}$  increase the weight for the loss in the boundary box coordinates.

Out[217] The localization loss measures the errors in the predicted boundary box locations and sizes. We only count the box responsible for detecting the object.

```
$$\begin(aligned)
```

```
\lambda_{i=0}^{S^{2}} \sum_{j=0}^{B} \mathcal{I}_{i,j}^{\text{text}}
  \label{left} $$ \left( \sum_{i} -\hat{x}_{i}\right)^{2} +\left( y_{i}-\hat{y}_{i}\right)^{2} +\left( y_{i}-\hat{y}_{i}\right)^{2} \right) $$
 11
+& \lambda_{\text (coord)} \sum_{i=0}^{S^(2)} \sum_{j=0}^{B} 1_{i j}^{\text}
  \right|
\end(aligned)$$
```

where

\$1\_(i j)^(o b j)=1\$

If the \$i\$ th boundary box in cell

\$i\$ is responsible for detecting the object, otherwise \$0 .\$

\$\lambda\_{\text {coord}}\$ increase the weight for the loss in the boundary box coordinates.

#### 渲染结果:

The localization loss measures the errors in the predicted boundary box locations and sizes. We only count the box responsible for detecting the object.

$$egin{aligned} \lambda_{ ext{coord}} \sum_{i=0}^{S^2} \sum_{j=0}^B \mathbb{1}_{ij}^{ ext{obj}} \left[ (x_i - \hat{x}_i)^2 + (y_i - \hat{y}_i)^2 
ight] \ + \lambda_{ ext{coord}} \sum_{i=0}^{S^2} \sum_{j=0}^B \mathbb{1}_{ij}^{ ext{obj}} \left[ (\sqrt{w_i} - \sqrt{\hat{w}_i})^2 + (\sqrt{h_i} - \sqrt{\hat{h}_i})^2 
ight] \end{aligned}$$

where  $1_{ij}^{obj}=1$  If the j th boundary box in cell i is responsible for detecting the object, otherwise 0.  $\lambda_{
m coord}$ increase the weight for the loss in the boundary box coordinates.

这个识别完是会自动复制到剪切板的, 但是好像我没提就没人发现?

还有本来里面自带了两个 key 的, 我刚才测了下都被 ban 了, 那我也没办法了, 自己去注册吧.

另外更新了一下 Display Mode:



▲ 赞同 75



7 分享



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 $i=0 \ j=0$ 

» Preview:

$$\lambda_{\text{no obj}} \sum_{i=0}^{S^2} \sum_{j=0}^{B} \mathbb{M}_{ij}^{\text{no obj}} \left( C_i - \hat{C}_i \right)^2$$

Out[218]//DisplayForm=

$$\lambda_{\text{noobj}} \sum_{i=0}^{s^2} \sum_{j=0}^{B} \mathbf{1}_{i,j}^{\text{noobj}} (c_i - \hat{c}_i)^2$$

mma 自己的渲染丑的我看不下去了, 加了个漂亮的预览功能.

另外看到个不错的项目, 完全仿官方客户端:

blaisewang/img2latex-mathpix

@github.com













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$$\begin{split} \lambda_{\text{nood}} \sum_{i=0}^{S^2} \sum_{j=0}^{D} \mathbb{E}_{ij}^{eq} \left[ (x_i - \bar{x}_i)^2 + (y_i - \bar{y}_i)^2 \right] \\ + \lambda_{\text{nood}} \sum_{i=0}^{S^2} \sum_{j=1}^{N} \mathbb{I}_{ij}^{eq} \left[ \left( \sqrt{y_i} - \sqrt{\phi_i} \right)^2 + \left( \sqrt{h_i} - \sqrt{h_i} \right)^2 \right] \\ + \sum_{i=0}^{S^2} \sum_{j=1}^{N} \mathbb{I}_{ij}^{eq} \left( C_i - \hat{C}_i \right)^2 \\ + \lambda_{\text{nood}} \sum_{i=0}^{S^2} \sum_{j=0}^{N} \mathbb{I}_{ij}^{eq} \left( C_i - \hat{C}_i \right)^2 \\ + \sum_{i=2}^{S^2} \mathbb{I}_{ij}^{eq} \sum_{e \in \text{obsens}} (p_i(e) - p_i(e))^2 \end{split}$$

Rendered Equation

$$\begin{split} & \lambda_{\text{max}} \sum_{i=1}^{N} \sum_{j=1}^{N} \mathbf{1}_{i}^{A_{i}} \left[ (\mathbf{x}_{i} - \mathbf{x}_{i})^{2} + (\mathbf{y}_{i} - \mathbf{y}_{i})^{2} \right] \\ & + \lambda_{\text{max}} \sum_{i=1}^{N} \sum_{j=1}^{N} \mathbf{1}_{i}^{A_{i}} \left[ (\mathbf{y}_{i} - \mathbf{x}_{i})^{2} + (\mathbf{y}_{i} - \mathbf{y}_{i})^{2} \right] \\ & - \lambda_{\text{max}} \sum_{i=1}^{N} \sum_{j=1}^{N} \sum_{i=1}^{N} \mathbf{1}_{i}^{A_{i}} \left[ (\mathbf{y}_{i} - \hat{\mathbf{y}}_{i})^{2} \right] \\ & + \lambda_{\text{max}} \sum_{i=1}^{N} \sum_{j=1}^{N} \mathbf{1}_{i}^{A_{i}} \left[ (\mathbf{y}_{i} - \hat{\mathbf{y}}_{i})^{2} \right] \\ & + \sum_{i=1}^{N} \left( \sum_{i=1}^{N} \sum_{j=1}^{N} \mathbf{1}_{i}^{A_{i}} \left[ (\mathbf{y}_{i} - \hat{\mathbf{y}}_{i})^{2} \right] \right] \\ & + \sum_{i=1}^{N} \left( \sum_{j=1}^{N} \sum_{j=1}^{N} \mathbf{1}_{i}^{A_{i}} \left[ (\mathbf{y}_{i} - \hat{\mathbf{y}}_{i})^{2} \right] \right] \end{split}$$

Submit

Result \begin{aligned} \lambda\_{\text {consd }} COPIED \(\begin{aligned} \lambda\_{\text {consd}} \$\$ \begin{aligned} \lambda\_{\text {cons} \begin{equation} \begin{aligned} \lamb Confidence

讲道理官方那个就几行 react, 非要搞 GUI 干嘛......

其他功能看上一篇:

酱紫君:用 Mathpix









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## 题图: pixiv.net/artworks/6689...

发布于 2019-12-08

Wolfram Mathematica

公式

图像识别

## 文章被以下专栏收录



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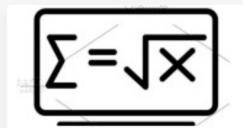
### 推荐阅读

## Vim: 最好的 Latex 编辑器

我一直试图寻找最好的 \LaTeX 编辑 器,现在我找到了,它就是 Vim它 的强大之处在于强大的文本编辑能 力和卓越的可拓展性。我介绍一下 我认为 Vim 写 Latex 好用的特性并 给予评分: 1. 分数拓展...

张翼腾

发表于vimer



公式免费转 LaTex 代码, 截图、 转换一气呵成,每月1000次...

机器之心

发表于机器之心









1个月前

Text模式手写体识别得怎么样?





曾旋

27 天前

github 上有个项目叫 matex 可以调用本地的 tex 引擎来渲染公式,不过很慢就对了。。。











